PROJECT FOOD AID

User's Guide for the Design of Food-Aided Development Projects

AGENCY FOR INTERNATIONAL DEVELOPMENT
Bureau for Food for Peace and Voluntary Assistance
Office of Program, Policy and Management
Washington, D.C.

PN- **May 1991**

PROJECT FOOD AID

User's Guide for the Design of Food-Aided Development Projects

Prepared for the Agency for International Development
under Contract No. OTR-0800-0-00-7194-00, Purchase Order No. 7680620

by

Judy Bryson
Steve Joyce

with
Daniel B. Edwards

Training Resources Group
909 North Washington St.
Suite 305
Alexandria, Virginia 22314
Telephone: (703) 548-3535

PN-

May 1991

Contents

Part 1.

INTRODUCTION

1. PURPOSE AND SCOPE OF THE USER'S GUIDE

1.1 THE PURPOSE OF THE USER'S GUIDE

This manual represents a new perspective for the use of PL 480 Title II resources. It presents a definition of the Title II food aid resource, Project Food Aid, and suggests a design and implementation process for using the resource.

1.2 A DEFINITION OF TITLE II PROJECT FOOD AID

Public Law (PL) 480 Title II appropriates commodities for use as Project Food Aid. The Agency for International Development (A.I.D.) is the implementing U.S. Government agency for PL 480, Title II.

Title II food commodities are used and managed primarily by nongovernmental cooperating sponsors—U.S. private and voluntary organizations (PVOs)—and by the United Nations World Food Programme (WFP). In addition to U.S. PL 480 commodities, WFP projects use food resources from other donor countries. Since the WFP project development and approval requirements are somewhat different from those set forth below, this document primarily addresses projects involving PVOs.

A.I.D. Washington and USAID field missions are responsible for Title II project approval, monitoring, and evaluation, in collaboration with the host government. The host government contributes to the cost of food aid transportation and storage and also collaborates with the sponsor in project implementation at various levels, and to varying degrees of involvement.

In addition to the roles that U.S. PVOs, A.I.D., and the host government play in food aid programs, other U.S. Government agencies and local nongovernmental organizations (NGOs) may also collaborate in Project Food Aid implementation. For example, Peace Corps Volunteers work as development technicians in projects using Title II commodities.

In the past, Title II resources were used in four categories of activities:

- maternal/child health (MCH)
- food-for-work (FFW)
- school feeding (SF)
- emergency programs

There was limited linkage between these activities. For the most part, they were implemented in the field as projects—"FFW projects," for example—in isolation of other development resources and projects. Experience with Title II programs, as documented in project evaluations, reviews, and workshops, indicates that a new perspective is required. This User's Guide applies the lessons of experience to formulate a definition of Project Food Aid, one which emphasizes the use of PL 480 Title II commodities as project resources and identifies the objectives for which they may be used.

PROJECT FOOD AID RESOURCES

A Definition

Project Food Aid Resources are Title II food commodities that are integrated and applied with other resources to ongoing or new development activities.

Project Food Aid can be used to achieve a variety of objectives:

- infrastructure creation
- long-term income generation
- child survival
- enhancing primary education; promoting school attendance and enrollment
- natural resources management
- emergency relief

The key words in this definition are *resources* and *integration*. Project Food Aid is one more resource for the development planner. It is most effective when combined with other resources, especially technical and material inputs.

1.3 CONTRIBUTION OF THIS USER'S GUIDE TO FOOD AID PROGRAMMING

This document makes three contributions to regular Title II Food Aid programming. (Emergency programming is not included.)

- It presents a complete generic process for designing development projects using a food aid resource.

- It supplements the generic process with specific suggestions concerning the design of regular projects for infrastructure creation, long-term income generation, child survival, enhancing primary education, and natural resources management.

- It identifies the technical resources needed for the design process.

1.4 USER'S GUIDE APPLICATION

The User's Guide presented here is not intended to narrow the parameters for applying Project Food Aid resources, nor to dictate "the right and only way" to carry out Title II-assisted activities. They may serve instead as a useful guide to development planners in designing and implementing food aid-assisted projects. The User's Guide presents model approaches and conditions but recognizes that the ideal is not always possible.

Nevertheless, it is useful and important that collaborating groups and individuals share an understanding and vision of what to strive for in program improvements and results.

1.4.1 Potential Users of the User's Guide

There are a variety of potential users of this manual:

- field personnel of nongovernmental organizations, such as private voluntary organizations, cooperatives, indigenous organizations, and village associations

- senior A.I.D. policymakers, Food for Peace (FFP) officers, and other A.I.D. program and project officers in Washington and in USAID field missions

- officials of host-government agencies and ministries

- headquarters-based PVO staff

- contractors or consultant teams on project design or evaluation missions

This User's Guide should be helpful to the above users in four specific areas: developing new food-assisted projects or identifying ways to use food aid in ongoing projects; managing existing food assisted projects; monitoring and evaluating projects; and training staff.

1.4.2 New Project Development

Part 2 of this document, The Project Design Process, suggests how project design can be carried out, and outlines steps for establishing an institutional infrastructure for the process. The key issues and considerations that should be discussed and explored by the collaborating entities during the initial project planning stages are presented also.

The User's Guide goes a step beyond simply highlighting these issues and considerations: they also specify—in chapter 3, Putting the Project Package Together, and in Part 3, Project Design for Specific Development Objectives—the sort of information necessary to judge whether a proposed Project Food Aid activity can succeed.

In addition to providing a project development process for identifying and developing Project Food Aid activities, either as separate projects or as components of other projects, the User's Guide will also serve these functions:

- They will advance the dialogue that could lead to new project development, by contributing to understanding and appreciation of Project Food Aid as a development resource among recipient government officials, potential sponsors, and A.I.D. project officers and consultants, as well as within the larger development community.

- They will help new projects establish performance standards—management and administration, technical and resource support—to ensure that Project Food Aid activities achieve their objectives.

- They will assist managers and leaders in assessing current Project Food Aid activities.

The User's Guide will also assist planners to identify ongoing projects not currently using a food aid resource, which could benefit from its application. Food aid can supplement existing capital resources, making it possible to expand the projects to support additional activities that enhance the possibilities for project success. The combination of development and social welfare functions of food can make it possible to support activities in areas that would be considered too marginal in normal financial terms.

1.4.3 Ongoing Projects

Projects already using Project Food Aid resources may use the User's Guide to find ways to improve impact. The User's Guide specifies what other resources contribute to the effectiveness of Project Food Aid, and at which points in project planning and implementation collaboration with other agencies and organizations will likely be necessary.

1.4.4 Monitoring and Evaluation

In helping to establish performance standards for new and ongoing activities, the User's Guide will make monitoring and evaluation a more meaningful process: Project adjustments will be more appropriate, project achievements will be more measurable, and planning for food aid phaseout or phase-over to self-sustaining

status (cash for work, for example) will be enhanced.

1.4.5 Staff Training

The User's Guide not only constitutes a basic reference for field personnel, but also can serve as a source of training material for new staff and in-country Project Food Aid workshops.

The User's Guide identifies the basic design elements to feature in any workshop that trains new staff, discusses the policy issues involved in implementing food aid-assisted projects, provides important background for analyzing new proposals, or for modifying ongoing projects.

Part 2.

THE PROJECT DESIGN PROCESS

2. PRE-PROJECT DEVELOPMENT

2.1 INTRODUCTION

This section of the User's Guide outlines a procedure for the design of development projects using a food aid resource. Chapter 2 discusses an approach to establishing a strategy and institutional framework for project development that provides the basis for the design process outlined in chapter 3. Chapter 4 describes the types of technical assistance needed during the various stages of project development.

The project design process is discussed from the point of view of an organization that is preparing to undertake new development activities and that previously has not used food aid in the country. Although the process is described from the perspective of the initiators of projects, it can assist personnel, such as USAID Mission officers, who are reviewing project proposals or preparing a country strategy. The steps in the process can be used as a checklist to assure that all necessary analysis was carried out and agreements secured among the proposed project implementers and participants.

The process can be used also for redesigning existing projects. In this case, much of the information needed may be available already. It is suggested that the steps be followed in either case, as new perspectives and approaches can arise from the review.

2.2 ESTABLISHING THE STRATEGY AND INSTITUTIONAL FRAMEWORK

Before project design can begin, considerable information gathering and analysis is required. There should be agreement on the development problem the project will address and a preliminary consensus on the project strategy. The potential participants, communities, and institutions should be identified and relationships established among them to support the design process. Finally, an action plan for project design will provide helpful guidance on the steps to be taken in preparing the final design.

Experience clearly shows, however, that setting up structures and procedures for project design is not a neat and sequential process; many unanticipated events occur and the variables constantly shift. In this respect, establishing the strategy and institutional framework for the design of a food-aided project is no different from preparing to undertake the design of other development activities.

For this reason, the steps outlined in charts 1 and 2 and discussed in the remaining sections of this chapter are not the "right" or "required" approach to project development. Rather, they are a means of identifying the types of interventions that

will likely be required at some point, and the range of issues that may need to be addressed.

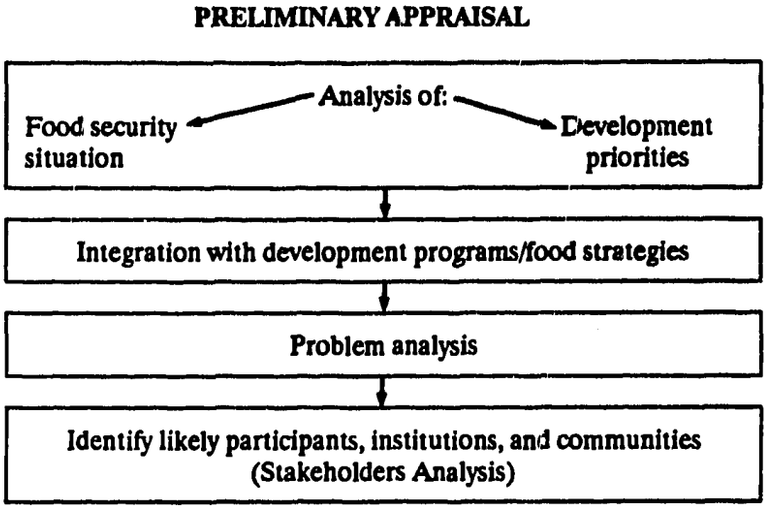

Chart 1. Establishing the strategy and institutional framework

Section 2.3 reviews the steps in the preliminary appraisal process diagrammed in chart 1. Section 2.4 covers preparation of the action plan for project development, which is outlined in chart 2.

2.3 PRELIMINARY APPRAISAL

The foundation of good project design is a data base adequate for informed decision making. The data will also provide a baseline for evaluation of project implementation. The initial step is to consider the overall development/food security situation in the country. The process should result in a determination of whether Project Food Aid is an appropriate resource to use in the country, and in the identification of development priorities that the sponsoring organization can consider for project activities.

The Food Security Situation Analysis and the Development Priorities Study can occur simultaneously or sequentially. However, they are two separate processes, and personnel with differing skills will be required to prepare material for each review. The food security situation is discussed first. If Project Food Aid is found to be an inappropriate resource to use in a country, project designers should turn to guidance for programming other types of resources.

The second step is to determine how the development priorities and food security situation information relate to current development programs and food strategies. The subsequent step of problem analysis should result in a refinement of information available on the development priorities to be addressed and serve as a basis for setting project objectives. These information gathering efforts will contribute to the identification of institutions, communities, and participants to include in the project and the design effort.

2.3.1 The Food Security Situation

When an organization is considering programming Title II resources, the place to start is with an analysis of the food situation. Baseline data are needed to determine whether U.S. food commodities are a needed and desirable resource in the country, given local conditions.

What are the overall food requirements? Is the country self-sufficient in particular food commodities? Are agricultural products exported? What types of food available through U.S. PL 480 would be consumed in the country? This information should be supplemented by data on specific food needs in areas of the country or population groups as is detailed in the Needs Analysis.

Needs Analysis

Are there food deficit regions in the country? Are there commodity-specific deficits?

If the country is relatively self-sufficient in food, are there segments of the population that are chronically malnourished?

Are there regions of the country where significant numbers of households lack the resources to achieve an acceptable standard of living, especially in terms of family food availability?

The answers to these questions on national and local food situations will provide a starting point for analysis. The data will be useful in determining and justifying program direction. (For further information, refer to *Manual For Food Needs Assessment*, Bureau for Food for Peace and Voluntary Assistance [FVA]/USAID, June 1985.)

2.3.2 Development Priorities

An organization with previous experience in a country will already have a good idea of the development priorities of the country and in its own program. This information will be presented in documents such as the Multi-Year Operational

Plans, but will need to be updated and reviewed. Organizations new to an area will wish to prepare their own analyses. There are a number of sources of information that they can use as a starting point. These include:

- Information prepared by the host country government on its macro-level plans and strategies. The data can be found in country development plans and reports prepared for donor round table discussions.

- Studies prepared by PVOs and NGOs.

- The current Country Development Strategy Statement (CDSS) and Action Plan of the USAID Mission, as well as reports prepared by other bilateral donors such as the United Kingdom, France, and Canada.

- World Bank reports and studies prepared by other multilateral organizations such as the United Nations Development Programme and the World Food Program.

- Sectoral studies prepared by the host country government, United Nations, or bilateral organizations, which provide analyses by sector, e.g., agricultural development strategies, tropical forestry action plans, health sector assessments.

The development problems and priorities specified in these documents should be supplemented by first-hand discussions with personnel of the organizations and with groups and individuals in the countryside. The process should result in specification of one or more priority areas that the organization can consider for project development.

2.3.3 Integration With Development Programs/Food Strategies

The planners should now identify the nature and scope of existing projects that are addressing the identified development priorities. Further questions to consider are how any new project can be integrated into current programs and what special contributions the project will make.

If Project Food Aid is to be used for maximum development impact, it must be integrated into overall development and food strategies. Project Food Aid should not be viewed or used as a stand-alone activity; it should be recognized as a *resource*, another tool for the development planner.

This food aid tool—if conceptualized as another input and carefully programmed—can free capital in existing projects, capital that would otherwise have been used to pay for resources such as labor. Food aid as an incentive can induce farmers and communities to participate in development programs and can lower overall capital requirements for future projects. Development projects can be conceived to invest or capitalize these freed resources into self-sustaining or institutionalized activities.

In defining food aid projects that are consistent with developmental strategies, planners should first consider basic developmental questions, and then see how food might be used as a resource in that overall strategy. A number of questions to consider are:

- What are the developmental needs and current activities of regional, local, and community groups?
- Which priority areas currently lack financial, labor, or other resources essential to significant local efforts?
- Can priority development activities be implemented in regions or sectors that both lack food and demonstrate an interest in and a need for development projects?
- What institutional structures exist for project development?
- What new developmental efforts might be launched if Project Food Aid provided that extra margin of input now lacking?

If the development planners have considered the big picture and have decided that indeed Project Food Aid has merit and promise for a specific project activity, the next major step is to prepare a detailed analysis of the specific development problem to be addressed.

2.3.4 Problem Analysis

The problem analysis should result in a clear idea of the work to be accomplished and the magnitude of effort involved. Ideally, in the process, the data on the development priority will be fine tuned and the points where inputs can have the greatest impact identified. The data are needed to establish objectives and identify project activities.

Further examples of questions to consider in problem analysis are contained in the introductions to chapters 5, 6, 7, 8, and 9.

2.3.5 Identification of Potential Institutions, Communities, and Participants—"The Stakeholders Analysis"

At an early stage in the preparation for project design, the planners need to identify those entities—host government ministries and departments, donor agencies, PVOs/NGOs, regional bodies, and local communities—that may have something to gain or lose from the activity.

These entities can be defined as *stakeholders*: they have an interest in the process and outcomes of food aid supported projects and will be able to significantly affect them, positively or negatively.

Problem Analysis

An Example

Erosion problems and falling agricultural productivity indicate that the introduction of conservation measures is a development priority. Specific information is needed on which erosion problems to address and their impact on the agricultural system. Questions to consider might include:

- What is the size and terrain of the area?
- Are both soil and water conservation measures required?
- What are current yields and expected trends in yields in the absence of conservation measures?
- What are the principal causes of the problems?
- What measures will be most effective in increasing yields and household incomes in the medium- to long-term?
- What impact will conservation structures have on production in the short run?

When devising the institutional structure for project design, it is important to select committed and helpful representatives. The emphasis should be on creating a partnership to foster sustainable activities. Realistic planning requires a full awareness of the individual context of the communities involved in the project.

The best way to apply the principle of "enlightened self-interest for commitment" is to create a structure in which the key stakeholders are represented including representatives of local communities. Building the structure should begin with the stakeholders analysis. Thereafter, arrangements need to be made to fully involve the stakeholders in the decision-making process.

STAKEHOLDERS ANALYSIS

Project Food Aid

What governmental and nongovernmental agencies and other groups, including local communities, have a potential interest and responsibility in the project?

In what way could each entity help or hinder planning for the project activity?

What is the specific interest of each?

What is at stake for each interest?

What would it take to satisfy that interest?

In the beginning stages of project design it is very important to develop managerial and programmatic norms and agreements. The essential questions are:

- What are the goals of the proposed project activity?
- How will they be achieved without wasting resources?
- How do we make decisions?
- Who does what?
- What should we do first?

It is equally important to regularly examine these questions as the project develops.

The most common way of making agreements is to communicate a great deal. Persuasion, increased information, and holding countless individual conversations and meetings will usually provide the normal mechanisms for agreement.

In addition, third-party facilitation and consultant resources can often help define issues and provide the occasion for agreements in a shorter time frame. A project design planning workshop can be one mechanism for coming together and making agreements. Getting away for two or three days and focusing on agreements can often save months of meetings with a changing body of participants.

2.4 PREPARATION OF THE ACTION PLAN

Once the preliminary analysis is completed and agreements made about the work and roles of the planning group, participants can develop an action plan for the design of the food-assisted project. This section will outline the tasks involved in action plan preparation.

There are many ways to produce an action plan and many formats available. Action planning formats usually contain written objectives and a list of major tasks required to achieve the objectives. Generally, the plan also identifies target dates and parties responsible for carrying out major actions or task areas. The staff who will eventually implement the action plan should be involved in its development.

In order to set up a project design mechanism, a number of steps need to be carried out. The task is twofold: to set up an institutional infrastructure, and to collect the information needed for subsequent detailed design. Critical to this design process are the answers to the following questions:

- What objectives should be established for the projects?
- How will project activities be selected?
- Who at the local level needs and wants the development activities and will cooperate in implementing them?
- Which specific agencies will cooperate in implementing the projects and what institutional arrangements will be made?

These questions need not be answered sequentially, as they are interdependent. More likely, they will be answered simultaneously and interactively. Chart 2 provides an outline of the steps involved in action plan preparation.

PREPARATION OF THE ACTION PLAN

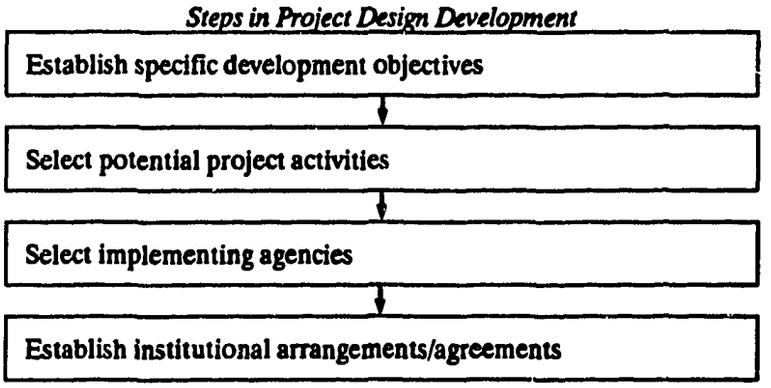

Chart 2. Establishing the strategy and institutional framework.

2.4.1 Establishing Project Objectives

Once a food needs analysis is conducted and agreement reached on project goals, specific development activities can be identified. These would be activities with potential to respond positively to food inputs and gain the commitment of implementing groups.

In determining appropriate project objectives, a needs assessment should be carried out in the communities targeted for potential activities. Objectives need to be established in line with local realities and community representatives fully involved in the decision making process. Establishing clear project objectives at the start will help resolve subsequent design issues. The project objectives should be consistent with the amount of resources expected to be available.

Establishing Objectives

An Example

The area targeted for intervention is a food-deficit area with considerable underemployment and high child-malnutrition rates. The project goal is to increase incomes and food consumption.

The area has good agricultural potential provided certain essential dams and irrigation works are created. Small-scale processing and manufacturing businesses operated by women could also be expanded.

A possible set of objectives for the project could be these: first to construct the dams and irrigation works; and second, to provide employment. If the objectives were reversed, more labor intensive methods would be indicated.

Subsequent choice of project activities and locations will depend on decisions concerning the relative priority of the objectives and on the causes of the problems.

A different set of activities would follow if the objective of the project was to improve the nutritional status of young children. This objective might be achieved by feeding children on site through a child survival project, or by increasing the knowledge and incomes of the children's mothers.

The example in Establishing Objectives highlights the special issues raised in establishing objectives for Title II Project Food Aid. A relief objective is almost always involved, since a basic purpose of Title II PL 480 is to provide food security to

needy people for a short-term period. However, Project Food Aid can be applied as both relief and development resources. Moreover, when applied appropriately, food aid can increase the impact of other development resources.

The choice of which objectives to establish, and in what priority, will depend on what needs are judged to be most critical. It will also depend on an assessment of what is possible given resource availability (personnel and materials) and local interest.

It may be possible and desirable to address several different objectives simultaneously. However, designing projects to meet multiple objectives can result in complicated approval and implementation processes. A more manageable approach would be to develop two or more projects within a comprehensive program.

Solutions to these and other issues can be found as long as the planners are well informed on local conditions and clear about the objectives to be achieved and the priority of each.

Food For Relief

Project Food Aid does serve an important objective when it provides food security to needy families. It enables them to maintain their situation, albeit at subsistence or near sub-subsistence, until circumstances improve.

This objective is significant when one considers the vulnerability of marginal farmers and very poor urban households.

Food For Development

Project Food Aid can serve more than relief objectives when it reduces the vulnerability of marginal farmers and others living at or below subsistence level over the long term.

Most existing food-assisted projects do strive to achieve development objectives, which range from providing drinking water wells, to improved or new road construction, to expanded nutrition centers. Yet there is still enormous potential to provide the kinds of benefits that will reduce the vulnerability of the poorest of the poor. Such benefits might be seasonal employment, skill development, or creating income-generating assets.

2.4.2 Selecting Potential Project Activities

The activities selected for inclusion in a project will depend on the objectives specified and the contribution which the project is to make in realizing them. Examples of project activities that contribute to the achievement of a variety of development objectives are contained in chapters 5, 6, 7, 8, and 9.

When specific activities are identified, the project designers should check whether it is appropriate to use food as a resource in implementing the activities. Even in food-deficit areas, food will not always be an acceptable resource for every project purpose.

Food can be used as a project resource in a variety of ways. For example, it can be used to compensate for labor, to reward for learning or changing, and to maintain or improve the nutritional status of a target population. It can also be used as an investment and exchange medium, as the example helps to illustrate.

Investment Fund Development

An Example

The implementing agency is a rural artisan cooperative league in a food-deficient region. The project objective is to increase the long-term income generating potential in the area, and the Project Food Aid activity is making sweaters.

The workers are the owners of the cooperative. They are paid for each sweater completed, half in cash and half in food. The cash saved through the food payment is placed in a capital investment fund for building the institution, and for longer term investment.

In order to arrive at the decision to develop the above project activity, the project designers would have determined (a) that there was a strong need and commitment locally to develop a small artisan industry, and (b) that the project was likely to succeed (that is, a needs assessment had been conducted).

Moreover, a food needs analysis would have indicated a food deficit in the area, and would also have determined that the sweater makers were willing to take part of their pay in the form of food as a way to build their cooperative structure. This approach creates the potential to use food in achieving the project objectives.

In this example, project success would reflect the expanded industrial capacity (for example, knitting machines) made possible by investing part of the capital that the Project Food Aid resource had freed up.

2.4.3 Selecting Implementing Agencies

During the process of looking at the needs and possibilities for local projects, various institutions should be surveyed and a determination made as to who is interested and who should be involved.

Selecting Implementing Agencies

The implementing agencies for a food assisted project could represent any number of possibilities: a PVO, a cooperative league, a community women's organization, or a regional or national governmental structure.

Key questions to ask in making the selection:

- What management support and technical assistance can the agencies provide to the project?
- What support will they need?
- Could other groups become involved as technical assistance providers to the implementing agency? Peace Corps Volunteers, for example?

These institutions might be local government project structures, ministry structures, or private and semi-autonomous structures. They may already be participating in the preparation of the action plan.

With food-assisted projects, institutional arrangements between a PVO and a local structure for project implementation are very common. For example, local development committees often provide input into planning and site selection.

Moreover, during project implementation, local development committees could also handle local resource and labor management on site, while maintaining coordination and accountability with the PVO.

Arrangements such as these can strengthen local planning structures and management capability.

When selecting the implementing agency, it is important to consider the strength of local institutions and PVOs.

This strength can best be measured by considering the following:

- Can the local institution manage and control the project implementation, provide the necessary technical support, and take care of the record keeping and warehousing of commodities at the project site?

- Which implementation tasks should be managed or provided by a PVO or other institution?

- What outside assistance will the local institution need during implementation to enable it to take on greater project responsibility?

Field research has shown that the most common problems faced by locally implemented food-assisted projects are the lack of technical, material, and management resources. Given these three problem areas, and the fact that most other development programs would likely cite the same three, extra care must be taken in staffing food-assisted projects. Scarce technical and management talent channeled from other programs and projects to supervise development activities should not be used for food aid distribution logistics.

For example, when foresters—a scarce commodity in most developing countries—are used on a food-wage forestry project to transport and distribute food rations to laborers, their effectiveness in technical task areas is diminished. In such situations, the Project Food Aid resource no longer complements but instead depletes other developmental resources. Food commodity distribution would be better handled by a separate, cost-effective management structure and the skilled forester used for project design improvements, training, and supervision.

Seeking a more cost-effective means of organizing a food management and distribution structure may result in any number of solutions. One possible approach is to establish a unified management structure to handle food rations for all projects in the country. With this method and others, however, it is essential that a professional corps of skilled managers be identified and trained to handle food management.

2.4.4 Establishing Institutional Arrangements and Agreements

Agreement on the institutional structure and coordinating mechanisms for the project will most likely not be formalized until the final stages of project design. However, if understandings are reached early on concerning what the various parties will do in the project, and they are fully involved in working out the issues of the

project design, implementation of the project is generally smoother.

The project planners should consider the following questions and come to understandings concerning the various issues involved.

- How do the entities with an interest in and responsibility for the activities in the project—the stakeholders—normally relate to each other? Do the requirements for the design and implementation of the project indicate that any changes are needed in the relationship?

- What mechanisms, such as committees, are required for coordination purposes? How often should they meet?

- What entities are normally involved in managing and distributing food aid in the country? How will they be integrated into the project planning and management structure?

3. PUTTING THE PROJECT PACKAGE TOGETHER

3.1 INTRODUCTION

This chapter covers the final steps in the project development process: the implementation of the action plan up to the point of project startup. Principal activities are the resolution of the basic project design issues and the preparation of plans for project implementation.

In most cases a functioning design group is already in operation, comprising representatives of interested departments of the host government, private organizations (including representatives of local groups), and donors. There should also be substantial agreement on overall goals and objectives (although these may be refined and revised in the final design process), and considerable information available concerning the areas proposed for project activities. The design group will use this information to shape the final form of the project.

This chapter breaks the project development process into a series of steps, discusses the questions to be considered at each stage, and illustrates possible solutions.

3.2 OVERVIEW OF THE PROJECT DEVELOPMENT PROCESS

The project development process should result in answers to the following questions:

- What specific activities will be included in the project? Where will project activities be located?
- Who will be the project beneficiaries?
- Who will receive the food aid commodities?
- What resources will the project need in terms of rations (commodity mix and size), other items, and funding? How will these be secured and distributed?
- How will the project be managed? What system of management controls will be established?
- How will the data essential to project management and evaluation be collected, analyzed, and used?

- How long will it take to complete the various phases (planning, implementation, evaluation, etc.) of the project? What is the total time needed to achieve project objectives?

- What project description should be prepared for the use of funding agencies and project implementers?

Chart 3 outlines the steps involved in the final project design. As was the case with the action plan development, the steps diagrammed in chart 3 often do not occur sequentially. However, the first four steps address substantial issues of project design. Completion of the latter four steps, three of which deal with management description, will depend on the decisions reached with respect to the initial set of issues.

Programming Activity With Regional, Local, and Community Authority Involvement

Steps for Putting The Project Package Together

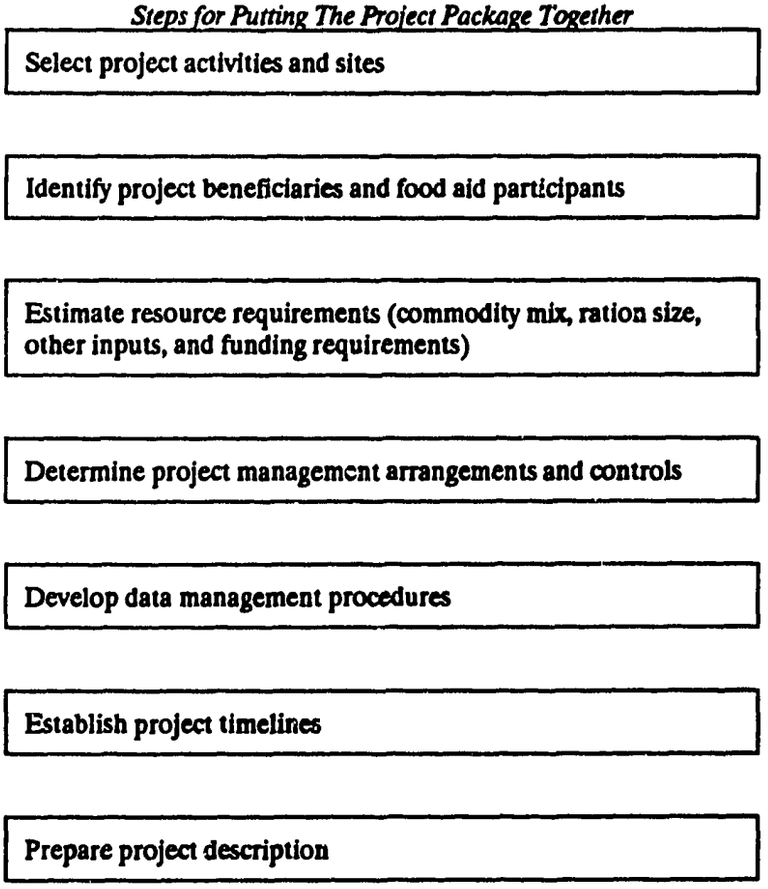

Chart 3. PL 480 Title II Project Development

The balance of this chapter outlines the factors involved in addressing these questions and provides examples of solutions that are drawn primarily from existing experience. Part 3 of User's Guide—chapters 5, 6, 7 8, and 9—addresses these same questions, and provides supplementary information on specific issues that arise in achieving different types of development activities.

3.3 KEY PROJECT DESIGN ISSUES

The key design issues of activity and site selection, beneficiary and participant[1] identification, and project resource requirements are discussed below.

3.3.1 Selection of Project Activities and Sites

If the collaborating groups have already established and agreed upon project selection criteria and guidelines, they can be used to choose project locations and activities. Such guidelines can provide a starting point for the project designers, who will reduce the general to the specific.

The activity- and site-selection process will need to balance questions of development priorities and food needs with the interests of the local population. Accordingly, once specific areas have been targeted for activities, arrangements should be made to involve the local population in the planning process if they are not already included among the project designers.

Key Questions

Which activity or mix of activities are required to achieve project objectives?

Which activities receive the highest priority from the collaborating groups?

At which locations is it most important to carry out activities?

Which activities have the greatest chance of success at those locations?

---

[1]The term "participant" is used in this document rather than the term "recipient" usually used by A.I.D. to refer to individuals receiving food rations. "Participant" is considered more appropriate as the intent of the User's Guide is to design food-aid projects that actively involve local populations and work to create capacity to sustain the interventions. "Recipient" implies a passive process where individuals receive gifts of food.

When selecting activities the designers must keep the desired project objectives firmly in mind, yet be willing to exercise flexibility in their methods of reaching the objectives.

For example, in a particular area the objectives of reducing child malnutrition may best be addressed by increasing mothers' incomes through a *food-wage* activity that also increases the future earning potential of the area. Regular child weighing could be arranged at the work site and arrangements made for follow-up of the severely malnourished—activities found in more traditional maternal/child health projects.

Project designers should view these methods for addressing food shortages and associated problems—traditionally carried out in the past under the Title II categories of Food-For-Work, Maternal/Child Health, and School Feeding—as a set of tools to be used selectively in addressing local conditions. Project designers should also develop new ways of using food aid as a resource to achieve project objectives.

3.3.2 Identification of Beneficiaries and Food Aid Participants

Key Questions
Who will benefit directly and indirectly from the project—both during and following its completion?
What is the relationship between food aid participants and the beneficiary group?
How will food aid participants be selected?

Project Food Aid activities differ from other development activities and other forms of food aid in that they generally involve distribution of food commodities at the project site. As a result, food aid participants are considered project "beneficiaries" during the implementation phase, but may receive only limited benefits from project outcomes, or none at all. Four possible situations follow:

- *The project may benefit some group other than the food aid participants.*

This situation would arise when landless laborers receive a food aid wage for constructing a water impoundment to irrigate farmers' fields.

- *The project may have a generalized benefit.*

Road construction that benefits all members of a community, including food wage laborers, illustrates this type of project. However, research has shown that lower income groups—the groups that participants are primarily drawn from—will benefit less from the completed structure than the better-off sections of the community.

- *The food aid participants are included among the direct beneficiaries of a project.*

This situation arises when food aid participants are a group within the overall beneficiary group: for example, when mothers participating in an income-generating project receive food supplements because they have malnourished children in their households.

- *The food aid participants are also the direct beneficiaries of the project activity.*

This situation would occur when farmers who have agreed to establish a more profitable crop receive food supplements to tide them over a period of lost production. Other examples would be workers receiving food while building low-cost housing they will later occupy, and trainees receiving food at a training center.

Determining the size and characteristics of the beneficiary group, and the relationship of food aid participants to it, is essential to project implementation and ultimate achievements. How many people will benefit, and in what ways, are indicators of whether it is worthwhile to undertake an activity. When numbers are too small in relation to project costs, when the beneficiaries are other than the groups the project wishes to assist, or when the effects are undesirable, changes of activity are indicated.

In addition, data on the relationship of participants to beneficiaries help determine the selection criteria for food aid participants.

Determining Selection Criteria for Food Aid Participants

In cases in which food aid participants are included among the beneficiary group, the selection criteria are generally based on need. For example, in a child survival project providing health services to women, food supplements might be provided only to pregnant and lactating women from poor households.

In other cases, the selection criteria may be determined by the intent of the project. For example, if one of the objectives of a food-wage activity is to provide jobs for landless laborers, the selection criteria would specify that only such individuals would be employed on the activity.

Where the food is an incentive for broad participation in an activity, no selection criteria may be required. In these cases, however, it should be established that the area concerned is particularly needy and that food supplements are generally required by most households.

3.3.3 Estimation of Resource Requirements

In the past a food aid distribution activity was often referred to as a "project," even when the only resource budgeted was the food commodities. This situation generally prevailed in the case of food-for-work and contributed to the limited achievements commonly resulting from such activities.

Key Questions

What are per-capita and total food aid requirements for achieving project objectives?

What ration package is required in terms of commodity mix and quantity?

What other inputs are needed by the project?

- For example: technical assistance, training, materials, funding to support overhead, transportation of food and other items, a cash element of workers' wages, and so on.

Where can these inputs be procured, and what will they cost?

Identification of all the inputs required to carry out a project is a necessary condition for project success.

Specifying Commodity Requirements

Specification of the ration package is a most important step in designing an activity using Project Food Aid resources.

The recently revised *Commodity Reference Guide* (Bureau for Food for Peace and Voluntary Assistance [FVA], 1987) sets out a recommended process to follow and also illustrates the method used to establish ration size and mix for traditional types of Project Food Aid activities. This process is summarized in the following paragraphs. As will be seen, much of the information required will be available already as a result of the preceding project development process.

Program Considerations

The types of analysis required to establish the ration package (see Steps 2-5 below) will depend on the purpose of food use established in this step.

Two principal purposes have been established for Project Food Aid: income transfer and nutritional value. Income transfer is the value of the ration in cash terms to the household receiving the food aid. Nutritional value is the energy, protein, vitamin, and mineral content of the commodities in the ration.

Food aid may be used for either of these purposes, or for a combination of the two. For example, if a child survival program's primary purpose is to increase utilization of health services, then the income transfer value of the ration is of primary importance as an incentive to bring families to the clinics. However, if the purpose is to provide a nutritional supplement, then the nutritional value of the ration is

given priority. When nutritional supplementation is intended, the project design should include steps to assure that the ration is actually consumed, by the target beneficiary, *in addition to* what is customarily eaten. A project can have both nutritional and incentive objectives and seek to meet both nutritional value and income transfer goals.

The questions set out below will clarify which of these purposes is most important in the project. In making this determination, designers will essentially review the decisions taken regarding project objectives, beneficiaries, and so on.

These questions should be asked:

- What are the primary and secondary objectives of the project?
- What is the target population?
- What is the role of food in achieving program objectives?
- What is the distribution mode?
- Should the ration calculation be based on nutritional criteria, income transfer criteria, or both?

Suitability

This step establishes which commodities available under Project Food Aid are suitable for use in the activity.

Four aspects should be considered when establishing a list and preliminary distribution schedule of commodities for the project.

Physiological Appropriateness

Physiological appropriateness is most important in projects where the purpose of food use is to achieve nutritional impact. Project designers will need to establish the amounts and types of nutritional deficits and determine which commodities can best address the requirements. Also, questions of digestibility or tolerance must be addressed in all circumstances.

Cultural Acceptability

Cultural acceptability is essential regardless of whether nutritional impact or income-transfer objectives are paramount. If a commodity is culturally unacceptable, it will likely be wasted and its nutritional impact reduced. The commodity may even remain unused.

In addition, because the amount of income transfer is determined by the prices a participant would pay for locally available commodities, a commodity that is culturally unacceptable will likely have low income-transfer value to the participants.

Local Preparation and Facilities

Local preparation and storage facilities must be adequate to handle the commodities. Commodities similar or identical to those currently used will require the least training for proper use.

Characteristics of Local Food Production

To minimize negative impacts on local agricultural production, it is vital to analyze the characteristics of the local food production system in relation to the project activity and food use.

These questions must be considered:

- What is the agricultural calendar for the area? What are the staples produced? Is there a "hungry season"? What commodities are scarce?
- Will project labor requirements, activities, or timing of distributions have an impact on the agricultural production system?
- What schedule is most appropriate for project activities?
- Does this schedule conflict with the agricultural production schedule? If so, can the work schedule and/or the distribution schedule be varied to accommodate the needs of the agricultural production system?

Ration Specifications

This step establishes the specifications the ration must meet in terms of nutritional value or income transfer. If the main criterion is nutritional value, the target number of calories and protein for each ration will need to be determined.

Levels of income transfer value are harder to establish, because they involve the participant/beneficiary relationship discussed earlier (section 3.3.2), as well as questions of local market conditions and compensation levels.

If income transfer is paramount, the project designers should first consider whether a food payment is required. A good starting place is to consider why the activity is not already ongoing. Many responses to this question may indicate no need for payment, but rather a need for another resource: for example, a complex task may require technical and managerial assistance rather than compensation.

There are four circumstances, however, in which payments are generally needed:

- The intended participants will not be beneficiaries of the activity.
- The intended participants lack the physical energy to carry out the activity.
- The participants have time constraints and would have to give up some other activity in order to undertake the new one.
- The activity, although desirable and important to future development, requires land inputs or substantial levels of labor inputs, or has a long time frame before benefits will be received.

The design group should establish whether any or all of these constraints apply to the project activities, and if they significantly impede achievement of project objectives. These data are essential to the subsequent analysis.

If it has been established that a payment is required, a further question must be asked:

- Is an incentive payment or a full wage payment appropriate for the project?

The answer will depend on how great a demand in time and other resources the project activity makes on the participants. In addition, the type of remuneration required depends on the beneficiary/participant relationship (as discussed in section 3.3.2).

Incentive Payments

In general, two types of activities are most appropriate for incentive payments: community activities and activities that directly benefit the participants. In other situations, a full wage payment is generally more appropriate.

If an incentive payment is appropriate, the next question to ask is this:

- How much incentive is needed?

At a minimum, the transfer covers any energy expenditures of the participants (including time spent walking to the project activity site).

In cases in which participants will have to forgo other income earning activities or make other investments, designers must consider the income costs of project participation.

Once data have been collected and preliminary proposals prepared, it is best to discuss the proposals with community leaders to ensure that neither too much nor too little is offered.

Wage Payment

If a wage is to be paid, what amount is appropriate and what portion, if any, should be in cash?

The wage should be set at a level that matches the normal local rate. Because the cost of living varies among regions, the amount paid in rural areas may be lower than the minimum wage, if the wage was set primarily for urban areas.

The question of a cash element in the wage can be answered on the basis of the beneficiary/participant relationship.

If the participants are not project beneficiaries or if their work will result in generalized benefits, a cash element in the wage is generally indicated. International Labor Office (ILO) guidelines suggest a 50 to 60 percent cash element, although under certain conditions a wage comprised of 100 percent food rations is acceptable (see chapter 5, section 5.3.4).

If participants are included among the project beneficiaries, some cash element may still be indicated. This is especially true if the wage will represent the participant's entire income.

Alternative Rations

In this step, the information developed in Steps 2 and 3 is used to develop proposals for ration packages that can meet the suitability conditions and provide the levels of nutrition value or income transfer required in the specifications.

The *Commodity Reference Guide* provides a methodology for this activity. Several alternative proposals should be prepared to permit adjustments in distribution during project implementation, based on actual experience with commodity acceptability and/or the availability of particular commodities. If possible, the designers should conduct field trials to determine the validity of the proposals.

Ranking and Selection

The final step in commodity specification ranks the various ration packages by cost to determine which should be selected for the project proposal. Various trade-offs should be considered: for example, differences in the impact of rations on households, which rations are most appreciated, and so on. In general, however, all other things being equal (or nearly so), the ration selected should be the one that meets the specification at the lowest cost.

When these five steps are completed, figures for total commodity requirements can be developed. Numbers of intended participants should be established and the distribution timetable determined (how often and for how long). Annual requirements can be prepared using these figures.

Finally, a decision should be made concerning the amounts (if any) of commodities for monetization to be included in the budget, so that total project requirements may be established.

The sales of Project Food Aid commodities to generate funds for other expenses is permitted under certain conditions, and project designers should refer to the *Monetization Field Manual, PL 480 Title II and Section 416(b) Programs*, A.I.D./Bureau for Food for Peace and Voluntary Assistance, August 1988 to establish the conditions that apply to their country and project. If commodities are to be monetized, they may be selected from the availability list.

It is most desirable to monetize commodities that are already imported into the country and are in increasing demand. The ease and efficiency with which the sales can be made, as well as the level of funds that can be generated in relation to the commodity costs, are other factors to be considered. The reasons for the monetization and the level proposed will have to be justified and should be based on the funding needs and availabilities discussed below.

Identifying and Budgeting for Other Inputs

The design team should review the project plans to identify all resources required to achieve project objectives. Technical assistance, materials, and training for project participants are resource needs in most activities. Other items that will be needed are personnel (or funding to hire them) to manage the activity. Funds will also be required for transportation of food and other items, and, most likely, for construction of project facilities. The design group should attempt to prepare a full list of requirements and identify which of the items are critical to project success and which are desirable if a source can be found for them.

Once the input requirements have been listed, it will be possible to prepare a procurement plan. A variety of sources for these inputs may be available. Host government departments, or organizations such as the Peace Corps, may be able to provide technical inputs. These and other resources may also be available from donor development projects, such as those of USAID or of international organizations. Local currencies generated from Title I or Title III programs are another possible source of funding.

Local communities can often provide facilities or materials in kind as their contribution to projects. Building materials such as sand, rocks, and gravel can often be collected locally, and when the volumes are high, such collection activities may be considered for inclusion in project work with partial or full food-wage compensation.

When the in-kind availabilities are known, the design group can then determine how much the remaining input requirements will cost. The PVO requesting food aid for the project may have funds available, or other donors and the host government may be asked to provide funding on a co-financing basis.

Funds for some items, including transportation of food commodities, can be sought from the monetization of commodities. Monetization requests have a better chance of approval when the design group can justify the funding requirement, show the contributions that the various parties to the project are making, and demonstrate that there are no funds available from other sources to meet these costs.

3.4 PLANNING FOR IMPLEMENTATION

The exercise required to resolve the basic project design issues discussed above will also result in preliminary decisions on the actions required to implement the project.

Personnel requirements were identified to prepare the project budget, for example, and timelines were estimated to determine the schedule of food commodity delivery. The remaining task is to refine the preliminary work and adjust the plans for project activities and budgets, where indicated.

The implementation plan should also incorporate the management arrangements necessary to permit a dynamic planning exercise. Changes will occur in the conditions in the project areas during implementation, and planned activities may not have the outcomes intended. As a result, the project should operate on a cycle of planning, implementation, data collection, evaluation, and replanning. The following pages discuss these and other issues involved in project implementation.

3.4.1 Determining Project Management Arrangements and Controls

Key Questions

What organizations and individuals (including local community representatives) will manage the project?

- How will these parties relate to each other? What is the chain of command and who has final decision making authority?

How will individual and activity work goals be established?

- What arrangements will be made to ensure that the goals are met?

What indicators of project goal achievement are needed? How will they be monitored and used?

What controls are needed with respect to facilities, materials, food rations, and other supplies to be used by the project?

What individuals or organizations will be responsible for enforcement?

The management and control arrangements can be viewed as the framework that provides direction to the project and makes possible its accomplishments.

In most cases, project designers will face a number of hard decisions in establishing the framework. The issues to be addressed include the following: Who will be responsible for implementation—a private organization, a government department, the local community, or a third party, such as a contractor? How will this implementer be supervised? What organization or entity will have overall executive authority for the project?

A national-level committee has overall executive authority for many projects. The committee, often chaired by the government department responsible for the activity, includes representatives of the various organizations involved in the project. Members meet periodically for review and oversight of project progress. They also make the decisions concerning overall project direction and supervise any replanning exercises.

Day-to-day direction of the project generally falls to the implementer, or implementing group. The implementer will report to the national-level committee, or possibly to a regional-level management committee, depending on national government structures. The choice of the implementer is critical to project success, as is the decision concerning the role of the local community in the implementation process.

In many situations, a community group may be the best implementer of activities, perhaps with technical support from a government department or a private organization. The community could develop valuable skills in this process, which would be useful in addressing its future needs. However, local communities have their own power structures and special interests, and the project designers should ensure that these will not hinder achievement of the project objectives.

In certain circumstances, it will be advisable to give implementing authority to a technical entity, but also give a specific role to the local community to ensure their interests are protected. In other circumstances, the local community may be the responsible party, but specific areas of decision making and execution may be delegated to a technical entity.

These issues are likely to be most critical in projects involving construction and employment, although important differences of opinion may also arise—for example, over which infants should be included in a growth-monitoring and food distribution project.

With respect to construction activities, communities are sometimes more interested in the immediate employment generated by the project than by the quality of the completed structure or the speed with which it is constructed. The choice of workers may be made using criteria other than their capacity to carry out the work.

In some cases, this is not a problem, especially where the construction and maintenance of the structures are to become part of the ongoing activity of the community—for example, terracing in agricultural fields. In this case, the technical personnel must keep up a continuous training activity, to ensure both the quality of the structures and the commitment of the population to their continuing use.

In other circumstances, however, the project's failure to achieve high quality work on schedule may reduce its usefulness or jeopardize other construction work. Planners must face these issues and establish the management structure prior to project startup as it will be extremely difficult to make changes after the fact, particularly if it appears necessary to replace a community group with an outside contractor.

Questions of indicators of project achievement and control measures are allied to these issues, because they can provide a mechanism that makes possible community implementation within an established framework of technical and accounting requirements.

Control procedures are often viewed as relating to accounting for materials, food commodities, numbers of employees, and so on. Such requirements are essential elements of control procedures, but the quality of what is being accomplished, standards of work, and adherence to the project schedule must also be agreed upon and monitored. These aspects are also indicators of project goal achievements.

Such standards as the quality of care given to infants in centers, the numbers of children served, or work norms on construction projects are examples of these indicators. Designers may need to set quality and quantity achievement standards, based on norms derived from established criteria (for example, international standards) and make provision for later modifications. It is more important to establish the principle that such control measures and indicators will be applied to the project than to have final measures prepared in advance.

Procedures to account for the resources used on the project will likely be a blend of those normally used in the country, plus any additional elements resulting from donor requirements. Accounting for tools and regular inventory checks on the numbers and conditions of tools are very important on construction projects, as appropriate tools in good condition are essential to work productivity. Similarly, the right scale for local conditions, correctly used and maintained, is critical to child growth monitoring.

The PVO requesting the Project Food Aid commitments will have certain legal responsibilities for food accounting. Their procedures for developing such reports as Commodity Status Reports and Participant Status Reports will most likely be followed, possibly with some modifications as required by local conditions.

Finally, there will need to be a set of supervisory personnel, and individuals to monitor the indicators, to ensure that the standards are being met. It is important that these people be other than the technical personnel working on the projects.

The role of technical personnel in control procedures and indicator monitoring should be to provide essential information: for example, confirming that a given volume of work was performed to an acceptable standard by a particular group of laborers during a work period. Other individuals—that is, control personnel and monitors—should have overview responsibilities and should periodically check what is being done.

This approach will provide a backup for the technical staff, many of whom may have only a few years of experience. It will also protect them from undue pressure from various interest groups and ensure smooth project implementation.

3.4.2 Developing Data Management and Utilization Procedures

Key Questions

What data are needed for project management and control purposes?

What data are required to facilitate evaluation of the effects of project interventions and to establish project achievements?

How can these data be collected, evaluated, and presented?

- How can project participants be involved in the process of collecting and evaluating the data?
- What individuals and organizations should receive the various reports?

What arrangements should be made for analysis of the information by the various parties involved in the project, and for replanning based upon the results of the analysis?

Data collection should be done with specific purposes in mind. Project personnel and participants should not only understand why they are collecting particular data but should also see the results of their efforts—which helps reinforce two-way project information flow and maintain data quality.

The cost of data collection is high, both in terms of personnel and time; it should not be collected unless it is used. At a minimum data should be collected on critical inputs (e.g., amount of food used), outputs (e.g., number of children reached), and impact (e.g., percentage malnutrition reduced). Intermediate measures, such as changes in beneficiary consumption, may initially be more useful than trying to measure changes in malnutrition, since no nutritional impact is likely to occur unless contemplated intermediate outcomes occur. There is a need for baseline data and quantifiable yearly targets or benchmarks for each indicator.

Data collection and analysis can serve three major purposes:

- to monitor project progress, enabling appropriate and timely problem solving, decision making, and resource allocation
- to measure project achievements, determining the effectiveness of development assets created, as well as the project impact on participants and beneficiary incomes and quality of life
- to derive lessons learned, in the form of case studies or activity reports, for use as educational tools, and to assist in future planning

3.4.3 Establishing Project Timelines

Key Questions

What are the critical actions involved in the project?

- How long will each take from start to completion?

Which actions must be accomplished before others can be started?

- Which activities can be carried out simultaneously?

What effect will commodity pipelines for food, materials, and equipment have on the project schedule?

What is the total time required for the project?

What will be the end of project status?

What project activities will continue after project completion?

To be cost effective, as well as to maintain organization commitment and interest, a project should establish a certain degree of momentum in moving from the design stages to implementation. It is better, however (at least initially), to err on the conservative side when projecting time requirements for the more labor-intensive project activities.

Many variables come into play when carrying out labor-intensive activities: terrain, climate, and labor force capability, to name but a few. Thus, project timelines will become easier to establish once project experience has been gained, and project systems, activity-specific work norms, and location-specific data bases developed.

Commodity pipeline considerations are important also in project schedules. Project designers often overlook the long lead times and annual procurement cycles of many items when preparing project timelines and assume the commodities will be available as soon as the project is authorized. Other considerations with respect to timing of commodity availability include haulage capacity in the country and seasonal variation in road conditions.

Finally, in establishing timelines, designers should also consider time needs for periodic action planning activities, and mid-point and final evaluations.

3.5 PREPARING THE PROJECT DESCRIPTION

The final task of the design team will be to prepare a project description that will be used both to secure resources for the activity and to later provide guidelines for the project implementers.

Given the multiple organizations involved in the project, they will likely have differing requirements for the project description. If possible, however, one single document should be developed, to help assure that all parties agree on what is to be done.

The description should begin with a discussion of the situation that has led to the preparation of the project proposal. This description can be prepared using information from the needs assessment.

Second, the objectives of the project should be presented, followed by descriptions of the other project development steps outlined previously in chart 3. This should ensure that the information covered will satisfy the requirements of both the donors and the project implementers.

The following information is requested for the Title II Multi-Year Operational Plans:

- Description of problem
- Quantifiable objectives
- Description of target population
- Description of project components and use of food
- Community involvement

- Collaboration
- Identification of activities to be implemented
- Monitoring and evaluation plan
- Budget including all funding requirements and funding sources

4. TECHNICAL ASSISTANCE

4.1 INTRODUCTION

This section identifies various forms of technical assistance that could prove useful in new project development.

4.2 PROJECT FOOD AID NEEDS ASSESSMENT

A needs assessment to determine Project Food Aid possibilities is the first step in designing projects that may utilize a food resource. Much of the information may be available in countries with experience in using food aid. More original research will be required in countries with little or no prior experience in applying food aid resources, especially given the special considerations outlined in this document.

In particular, the needs assessment should provide information in the following areas:

- nutritional needs of target groups
- development needs of target groups and target areas
- degree of unemployment and food deficiency in target areas
- need and desirability of U.S. commodities in target areas
- potential implementing groups in the target areas, and their level of interest
- potential resource support from host-country government
- ministries and agencies, donors, PVOs, and other groups, and their level of interest
- capability of existing food-aid distribution networks and systems, or projected requirements for new distribution mechanisms

This information will establish a baseline of data to determine appropriate applications for the food-aid resource.

4.3 DESIGN ASSISTANCE

Integrating food aid into existing development projects or developing new food-assisted projects will require good project-design skills.

As emphasized in the preceding chapters, project developers will need to work closely with participating groups and the implementing agency to determine the following:

- appropriate objectives and activities
- technical specifications for activities
- appropriate target groups
- ration size and composition, and other incentives
- complementary resource needs
- management arrangement and controls
- data management requirements
- monitoring and evaluation design
- project timelines

One or more of these areas may require outside design assistance.

4.4 PROJECT STARTUP ASSISTANCE

At the beginning of many new projects, management teams are often not as effective as expected.

Team members understand the scope of work differently. They may differ in the perspectives they share about the project. Also the team may be pressured to start immediately, rather than spend the necessary time to establish relationships and plan how they will go about their work.

Moreover, some team members may arrive at different times and allow insufficient time to work out relationships and discuss their expectations about the project.

One way to deal with many of these issues is to conduct a project startup workshop at the beginning of a new project. The overall purpose of this workshop is to shorten startup time, develop draft action plans for the first 6 to 12 months of the project, and build an effective management team.

A project startup workshop, which can be conducted in 3 or 4 days, should include the following:

- long-term technical assistance personnel
- key host government project personnel
- key staff of collaborating entities, such as local indigenous NGOs, community organizations, PVOs, Peace Corps, and A.I.D.

If these groups participate at the early stages of planning, they will likely share an understanding about the project and a commitment to the first year's work plan.

Outside assistance may be necessary to facilitate these workshops.

4.5 STAFF TRAINING

Food aid program staff and supervisory and technical staff of food-assisted projects will need to receive some training in applying and managing the food resource. A project-implementation workshop, based on this document and on country-specific design considerations, could be a vehicle for this training.

On-site training may also be required to introduce supervisory staff to new food aid distribution requirements, for example, new technical work standards. These training requirements may need outside design and delivery assistance.

Part 3.

PROJECT DESIGN FOR SPECIFIC DEVELOPMENT OBJECTIVES

5. CONSTRUCTING DEVELOPMENT INFRASTRUCTURE

5.1 INTRODUCTION

Infrastructure creation is essential to the development process. Infrastructure such as national road networks and water impoundments support overall development, and facilities such as classrooms or warehouses are needed for specific development purposes. Another aspect of development infrastructure creation is the formation of human resources.

Employment generation may be a secondary objective of infrastructure creation. In some situations, such as impending famine emergencies, employment generation may be of primary importance. In these cases, infrastructure creation projects have social as well as development objectives.

The food resource can provide valuable inputs to the process of infrastructure creation. The programming requirements of this resource can also focus greater attention on social equity concerns related to infrastructure and promote efforts to ensure that the poor receive direct benefits from new infrastructure development.

INFRASTRUCTURE CREATION USING A FOOD AID RESOURCE

A Definition

Assuring that quality development infrastructure in terms of physical assets and human resources are available in poor areas is the primary purpose of these projects. The principal features of the activities are:

- Food deficit areas and/or areas with a high proportion of poor households receive priority in project selection.
- Employment generation is targeted on individuals from households that are at or below the poverty line.
- Sufficient technical assistance, supervisory personnel, tools, and materials ensure the infrastructure is of adequate quality for its intended use.
- The food resource addresses critical constraints by:

- supplementing cash resources to pay wages of workers
- supporting training for needed skills
- providing funds for other resources through monetization

Infrastructure is generally created to support achievement of development goals. Basic infrastructure such as roads provides access for a whole range of services and promotes market growth. Other types of infrastructure are needed to achieve specific development goals such as long-term income generation, child survival, enhancing primary education, and natural resources management, as is discussed in chapters 6, 7, 8, and 9.

The problem analysis should indicate the requirements and the technical specifications for the infrastructure. Questions to consider include the following:

- What infrastructure (physical or human resources) is critical to solving the development problem?
- What quantity and quality of infrastructure is needed?
- What minimum standards must be met?
- Is unemployment or underemployment a critical problem in the area? Where will the labor force be recruited?
- How will any physical infrastructure be maintained once it is constructed?

The objectives of the project will depend upon the answers to these questions. The information will also provide a preliminary assessment of the magnitude of the activity and an indication of the technical issues presented by the project.

This chapter raises many questions, some of which are partially answered on the basis of what has been learned about using food in infrastructure projects. However, as with any good project development process, the complete answers will be specific to a given locality.

Section 5.2 discusses the project activities involved in infrastructure creation. Section 5.3 covers project design issues.

5.2 PROJECT ACTIVITIES

The activities included in the project will depend on whether its objective is the creation of physical structures or human resources or both.

Construction of physical structures involve a fairly standard set of activities which include:

- surveying the area and the quantities of work to be accomplished
- preparing plans for the structure or facility
- establishing the supervisory staff

- arranging for the availability of materials and equipment
- recruiting the labor force
- constructing the infrastructure
- establishing mechanisms for maintenance

The creation of human resources may be carried out in a variety of ways. The project activities discussed in this chapter concentrate on skills needed for employment and on-the-job training. Subsequent chapters on long-term income generation, child survival, enhancing primary education, and natural resources management cover other types of training activities.

When employment generation is one of the objectives of the project, it will affect the choice and management of activities. For example, more labor intensive methods of construction may be used, and the tasks and remuneration may be designed to attract certain types of individuals.

The following sections discuss the ways in which food can be used in the project activities. It is emphasized that food alone is not sufficient to carry out infrastructure creation activities. Technical personnel, materials, and equipment are also needed on the activities.

The activities discussed below are not intended as a catalogue of all possible activities but as a starting point for project designers. Each project should be specifically designed to address local conditions using the process set out in chapters 2 and 3.

5.2.1 Food as a Component of Wages

The use of food as a component of wages is appropriate in activities where the primary objective is to create a physical asset or to develop human resources through on-the-job experience. Applied to these project activities, food can help stretch project funds so that more can be done.

Food supplements the cash funds available to the activity sponsor. It can make it feasible to carry out activities that would otherwise be too large for the available resources or to support additional activities critical to project success. The combination of development and social welfare functions of food also can make it possible to support activities in areas that would be considered too marginal in normal financial terms.

The use of a food wage or a combined food and cash wage can also help to target employment creation to poor, food-deficit households with underemployed members. This group is more likely to respond to the incentive of a food or partial food wage.

Human resources development occurs when food-wage laborers build skills on the job that are essential to project efforts and that will eventually bring them a full cash wage or make their own farms or businesses more profitable. Using the food wage to pay project personnel, at least initially, helps assure that jobs are going to those who are most needy. Examples include tree nursery and out-planting workers, gardeners, and tailors.

A partial cash wage is preferred in most situations. However, a full food wage is considered acceptable for project activities that are community based, since they are in most cases directly tied to the population group from which the food-wage laborers come. Levels of remuneration and wage formulation are project design issues that are discussed below.

The box lists some of the development activities where a food wage has been used successfully.

Development Activities with Successful Food-Wage Use

Construction of schools	Bridge construction
Construction of clinics	Road construction
Road maintenance	Soil conservation
Urban gardens	Tree nurseries
Community gardens	Woodlot planting
Tool manufacture	Woodlot guarding
Water systems	Woodlot maintenance
Irrigation systems	Firebreak establishment

5.2.2 Food for Employment Generation

The use of food as a wage component is appropriate in infrastructure development activities that are primarily intended to provide employment opportunities for people facing particular hardships.

In these situations, providing "a job and food" to people is determined to be critical for their survival. Such employment generation activities are seen as most helpful in serious food deficit situations as a means of keeping people from migrating for work. Examples include employment guarantee schemes for landless laborers or famine-affected groups.

However, even when employment generation is the primary objective of a project, it should have secondary objectives that are developmental. If a full food wage is to be used, the most appropriate activities are those that will directly benefit the workers and enhance their future income prospects.

However, in emergency situations where there is no ongoing activity that can be expanded, basic infrastructure creation activities usually offer the best assurance for

development results. Other types of development projects require personnel and technical and material inputs that may not be available on short notice.

Basic infrastructure projects should be limited to public works activities that provide generalized benefits to the local population as a whole and are not monopolized by more-advantaged economic and social groups. Examples include community centers, dams, schools, and clinics.

In long-term employment guarantee schemes, a total food wage should not be used unless the workers derive direct benefits from the activities or learn new marketable skills from their employment. In most cases, the food resource can stretch the cash resources available for wages, but it should not totally replace them.

As a supplement to cash wages, food allows the activity sponsor to undertake additional or larger activities, employing more people than would be possible under normal budget situations. Moreover, the combined food and cash wage can be as valuable to the worker as a full cash wage, given that a portion of the full cash wage would need to go for food anyway. The cash component provides money for other basic needs such as fuel and clothing.

5.2.3 Food for Monetization

Sales of food can assist in providing cash needed in infrastructure creation projects for items such as tools, cement, other materials or transportation. Project designers should follow current monetization guidelines in developing their proposals.

Closed monetizations of commodities, where food aid is sold to the participants in activities, may also be appropriate in projects. For example, food commodities can be sold at subsidized prices to low-paid workers on construction activities and the funds used for project budget needs. This use of food can be helpful in attracting a labor force and can also help to ensure food is available for workers. This can sometimes be a problem, especially when large numbers of laborers are working in areas with small populations and limited markets. Monetization policy requires that commodities be sold at full commercial price, but waivers can be granted provided the lower prices are justified in the monetization request.

5.3 PROJECT DESIGN ISSUES

The project design issues discussed below concentrate on the questions that arise when food is used as a component of wages. Each country will have its own special set of conditions and issues that must be considered when designing and implementing projects that use food as a wage component. Nevertheless, there are a few basic issues for any programming discussion at national, regional, and local levels.

The most basic issues that should be considered in deciding whether to use the food resources as a wage component in a particular project activity are the following:

- appropriateness to the activity
- the work site location
- worker selection
- the wage formula and additional incentives
- complementary resource support
- maintenance of completed infrastructure

5.3.1 Appropriateness to the Activity

Key Factors To Consider

Will project targets for quality and completion dates be met if the activity is carried out with food-wage labor?

How much external management and technical assistance would be required to oversee the food-wage laborers, and at what cost to other project activities?

Do food aid distribution networks already exist?

Could the work be done by community volunteers, without introducing the food wage?

Is payment in food culturally acceptable to the proposed workers?

Cost effectiveness and "community volunteerism" are two issues to weigh carefully in determining the overall appropriateness of the food wage for a particular activity.

Cost Effectiveness

The food wage is not a free resource. Food distribution, management and technical supervision of workers, training, quality, and timeline requirements—all are factors determining the labor cost of a particular food-assisted activity.

Thirty food-wage laborers might need two weeks to dig a fish pond, a job that a bulldozer could do in one afternoon. Is a bulldozer available, and at what cost? Are the laborers capable of meeting project targets for quality and completion dates?

Will subsequent project activities be on hold until completion of the food-wage activity? Who would provide technical and management supervision of workers?

If some tasks require training, it will be essential to provide the food-wage labor force with enough incentives—food rations, part-cash wage, or other appropriate incentives—to assure minimum turnover. Skill development takes time, and constant training of new workers will burden supervisory staff.

Can the project tap into existing and reliable food aid distribution systems? When rations are delayed one or two months, worker absenteeism results.

It may be possible to distribute food rations in collaboration with other projects, such as child survival projects, or with World Food Program and other donor food aid projects. But it may be necessary to establish a separate system, if costs are justifiable.

Community Volunteerism

A common criticism of activities involving food for work has been that community motivation and participation can become dependent on food aid when it is given as an "incentive" for time volunteered. Over a period of time, the argument goes, food aid and volunteerism become meshed, and the spirit of volunteerism as a value within a community is eventually lost.

On the other hand, community volunteers have successfully worked side by side with food-for-work laborers on community projects when the food commodities have been clearly defined *as a wage*, rather than compensation for time volunteered.

This distinction is particularly crucial in projects that rely on the food-wage resource for some aspects of project implementation and on voluntary participation for others. So which project tasks should be earmarked for food-wage labor, and which tasks can community volunteers be expected to do?

Before this question can be answered, another key question needs to be asked: How much volunteering are people willing to do? They may well recognize the need, but can they afford to volunteer the time?

The example shows how these concerns might be addressed in a woodlot project.

The Food Wage and Community Volunteerism

An Example

A 7-hectare woodlot was prepared for planting by 15 local food-wage workers. They cleared the site, fenced it, and plowed furrows 4 meters apart. In these plowed furrows, they dug water catchments every 3 to 5 meters.

On National Tree Planting Day, the entire 7 hectares—which is roughly equivalent to 13 football fields—was planted by a large turnout of community volunteers. The food-wage laborers supervised the work to make sure the tree seedlings were planted correctly.

5.3.2 Work Site Location

Key Factors To Consider

Is there a labor surplus in the area? Will the activity attract both men and women?

Is the area sufficiently food deficient to attract an appropriate labor force, e.g., able-bodied workers for hard physical labor?

Does the site meet technical criteria for success, e.g., adequate soil conditions, rainfall, land tenure?

The food-wage resource often attracts considerable interest in a country, because it is a visible resource that reaches the local level.

In programming the food-wage resource, site selection often comes under pressure from various interest groups. For this reason, criteria for site selection should be established early on to protect projects from too much outside influence in the planning and implementation of food-wage tasks.

When work activities have developmental objectives, the sites selected should have reasonable prospects for success. In selecting a site, technical requirements should be weighed equally with more traditional criteria. With reforestation projects, for example, the site-selection criteria should address growth-rate potential and land tenure, in addition to the need for reforestation and the severity of food shortages.

Site Selection Criteria

In food-wage assisted projects with developmental objectives, the following site selection criteria should be considered:

- severity of food shortages
- site technical requirements
- work-force availability, capability, and stability
- cost factor in distributing food-wage rations
- need for the expected outcomes
- land ownership

Another important criterion for site selection location is labor availability and labor capability. Site location and labor availability are two closely linked factors that influence the strength of the food wage as a development resource. Put simply, the food wage is a useful development resource *when* and *where* it can attract productive workers.

In food-deficient areas, where few employment opportunities exist, food-wage assisted projects do attract capable workers and experience very little labor turnover. In rich agricultural areas, on the other hand, imported food commodities may prove less desirable to people, or the equivalent value of the rations may be less than the region's going rate for cash-paid labor. These project locations will likely attract a smaller, less capable labor force than required, and one that turns over frequently. Finally, as previously mentioned, the cost of distributing food rations to potential work sites is another key criterion to consider. Is there a nearby distribution center willing to assist, or would a new distribution outlet need to be established? Are sites widely dispersed?

The cost of administrative and logistical support for use of the food resource—transport, warehouses, accounting requirements—will be lessened if existing food aid distribution networks can be tapped.

5.3.3 Worker Selection

Key Factors To Consider

What are the various tasks required to carry out a particular work activity?

- Can women be considered for nontraditional roles in a given culture?
- Can any of the tasks be done by elderly or handicapped people?
- Which tasks will require an able-bodied worker?

What is the target group from which the food-wage workers will be selected?

- How will potential candidates be identified?
- Who will determine which individuals are selected?

When worker selection uses very basic criteria, the job of selecting productive workers is expedited and will likely lead to better project results.

How one defines a "productive worker" will vary from task to task. What performance level is required to carry out a task adequately and within a planned time frame?

When work tasks have developmental objectives, the workers selected should be able to perform the task adequately. Different tasks require different worker capabilities, particularly with regard to health and age. The worker who digs holes to plant trees must be more physically able-bodied than the one who manages the tool shed, a position that may require the ability to read and write.

Tasks requiring more physical strength should be identified for the more physically able-bodied, and those requiring less strength should be reserved for the less able-bodied. The food wage is most effectively applied as a development resource when participants are selected on the basis of their ability to carry out the work-task requirement.

Worker selection, like site location, often attracts special interest. Where labor opportunities or food is scarce, employment may not go to the best qualified or the most needy, but to the politically favored. When special interest groups instead of project staff select food-wage laborers, worker capabilities may not be considered. Those selected to carry out a particular task may be in poor health, or too young or old to do the task reasonably well.

The food wage, when it goes to the more able-bodied family members of needy households for those tasks requiring hard physical labor, not only feeds the rest of the family, but also builds roads and plants trees more efficiently.

5.3.4 The Wage Formula and Other Incentives

Key Factors To Consider

What food aid commodities are available?

- How have they been received in the past?
- What is their estimated local market value?

If the food wage does not match the going rate for paid labor, could other project-provided incentives complement the value of the food payment?

- Is a part-cash wage feasible and justified?
- Can daily work hours be reduced?
- Can the volume of commodities in the wage formula be increased?
- Will some of the workers receive direct benefit from project activities?

Social and economic factors weigh heavily in the search for the right answer to the question, What is required to attract productive workers?

What is the distance to the site? Is it in an urban or rural area? How high is unemployment? What is the official minimum wage in the country versus the actual minimum wage? What percentage of the unemployed already receive emergency food aid through other sources?

An even more basic question to ask is: *What's in it for the individual worker?*

Generally speaking, the food wage does attract productive laborers when the full wage—food commodities alone, or a combination of food commodities, cash and other incentives—is competitive economically with the going rate for cash paid labor.

Urban Areas

In urban areas, the cost of using the food-wage resource could be higher if ample employment opportunities exist for unskilled labor.

Other incentives, including a part-cash wage, may need to be linked to food commodities in order to attract appropriate workers to the project.

Rural Areas

In rural areas, on the other hand, where fewer employment opportunities exist, the food commodities alone may prove to be incentive enough to attract a stable, productive labor force.

Major determinants in the wage formula for rural areas will be the degree of food deficiency and the number of poverty-stricken families.

Additional incentives, however, are usually necessary in areas that already receive emergency food relief.

Consideration Of Local Factors

Basic Information Required

Local wage/compensation for specific levels of applicable work

Food consumption patterns/nutritional deficiencies

Commodity costs—purchase, ocean freight, overland and internal transport, storage and handling costs

Key logistics constraints

Local Agricultural Data

Agricultural calendar

Local agricultural production levels

Local food imports and exports

Producer prices and market prices

Source: AID Food-for-Work Conference, Annapolis, MD, December 1985.

Wage Formulation

If food commodities are to be defined as a wage, how will appropriate wage formulas be determined? What factors should be weighed in devising the wage scale? The following are key elements to consider in developing appropriate wage formulas for food-wage supported work tasks:

- the degree of labor surplus and food deficiency

- the worker capability required to carry out a particular work task
- the availability of cash to supplement the food wage
- other incentives, such as skill training, half-time employment, or piece work

Ration size and content are significant factors in determining the attractiveness of the food ration as a wage.

Ration Size

The food aid ration, to stand alone as an effective wage, must be fairly equivalent monetarily to the going local rate for cash-paid labor. Flexibility in determining ration size—the kilo amount of bulgur wheat or vegetable oil included, for example—allows for a wage scale more tailored to work tasks and lessens the need for other direct incentives.

Maintenance of "cash wage" equivalency, however, will require periodic adjustments to keep up with inflation. Seasonal adjustments, either to work norms or ration size, also may be appropriate.

Ration Content

The value of the food aid ration is determined by using the prices of similar local commodities and determining how much of one commodity or a combination of commodities is required to approximate the value of local wages. Identified high value commodities such as oil are typically used as part of the ration.

By the same token, an unacceptable commodity can lower the value of the food wage. Some 20 years ago, Scandinavian dried fish was first introduced into southern Rwanda as part of the food ration. People were unwilling to work for it. In fact, there was so much resistance to the dried fish that expatriates were sent in to teach people how to cook it properly. Program officials have since acknowledged that the commodity's unacceptability to the local population weakened the work program considerably.

However, over a number of years, the fish gradually became accepted by people and has since become a very popular culinary commodity in that part of Rwanda. The soaking water used to rehydrate the fish is even saved and heated for broth. Moreover, fish farming has become a viable small-scale enterprise.

Although this example is an exception, it illustrates two important points: (a) unwanted food commodities do not attract productive workers and can undermine a work program; and (b) an inappropriate food commodity may become a preferred food over time, which could encourage local production if the capability is there, but could also create a long-term dependency on imports. Accordingly, the use of commodities that have no local equivalents is not encouraged.

Appropriate Food Commodities

Appropriate food-wage commodities satisfy the following conditions:

- They are valued by the target population.
- They supplement local foods, but do not compete with them.
- They meet most nutritional needs of the household, unless the ration is supplemented with a part-cash payment.

Part-Cash Wage

A part-cash wage should be considered in the following circumstances:

- if the workers will be involved for a significant period of time—more than a month, for example
- if the benefits are generalized—that is, if the food wage participants do not derive assets or new skill development
- if the workers are landless laborers who depend entirely on their wages to meet all their needs
- if the technical standards for the activities are high
- if the pace of work required is relatively fast

The International Labor Office (ILO) has established guidelines that identify when a full food wage without cash supplements is appropriate (see box).

ILO Guidelines on a Full Food-Wage

Under certain conditions, the ILO considers a wage comprised of 100 percent food rations to be acceptable. These conditions are outlined below:

- when there is a stated policy in which the food ration as wage is seen as a transitional phase to a cash wage
- when employment is generated that eventually will not be dependent on food rations
- when the assets created by the food-aid assisted project are for the benefit of the whole community, and not confined to certain individuals
- when the food aid-assisted project helps move the community toward self-sufficiency in food production
- when the food aid-assisted project includes training of local community members as a key component

Standardizing the Food-Wage Resource

Uniformity among donors, sponsors, and implementing agencies in applying the food-wage resource will enable higher project performance standards to be established. Four areas in particular, if standardized, would contribute to higher project performance:

Worker and Site Selection Criteria

As noted earlier, standard worker- and site-selection criteria help reduce the pressures of special interest groups on project management staff.

Work Norms

Experience has shown that using food for wages is more effective when compensation is linked to completion of specific tasks. Early projects that only related food payments to hours of work too often produced poor work performance.

Standard work norms for each food-wage task would permit better planning for future food-wage activities, and a more meaningful evaluation of completed activities.

Naturally, work norms for some tasks will vary from work site to work site. The number of holes a worker is able to dig in a day, for example, will depend on the terrain, the soil conditions, rainfall, and the tools provided.

Work norms can also be established for a group and cover a working period. For example, a work gang of 20 people may be paid a month's wages when a given section of road or a culvert is completed. The quantities and tasks included are specified in advance, and the group is given a specified time in which to finish the work. They may finish sooner if they wish.

Ration Value

Ideally, the value the participants attach to a food-wage ration should be at least equivalent to the going rate for paid labor in the area—unless the ration is only one half the wage, for example, and cash makes up the other half.

Standardizing the ration value according to going rates for cash-paid labor helps assure that the ration is acceptable to people in the area. This acceptability will help guarantee that a project has a sufficient, capable, and stable labor force.

Other Worker Incentives

Other worker incentives, in addition to food commodities and cash, can also influence the wage formula.

Possibilities to consider

- ***Is on-the-job skill training available?*** The opportunity to gain blacksmith or masonry or beekeeping skills adds a powerful incentive to the wage formula.

- ***Could a "shift work" approach be used?*** Half-time food-wage jobs have proved more responsive to the needs of single women who are heads of households: It gives them an opportunity to both provide for their children and take the time necessary to properly care for them.

  Long distances to the work site could make a two-shift day unfeasible, but perhaps not a two-shift week, in which, for example, two crews each work three days per week.

- ***Are there project tasks that could be done as "piece work"?*** Paying with food commodities for the brush fencing panels that the project needs enables food-wage laborers to do the work when it is most convenient for them: at the end of the day when their own farm work or other chores are finished. Older or younger family members are also able to help out.

- ***Are there promotion possibilities?*** The promotion of food-wage laborers to cash paid positions provides a powerful incentive, not only for good performance, but also for the acceptability of food aid as a wage. It is an incentive that has proved effective in many food-wage projects.

5.3.5 Complementary Resource Support

Key Factors To Consider

What resources are available? From what sources?

What management and other support will be required?

How much technical input will be required during the design phase of a food-wage assisted project, and who will provide it?

How much technical supervision and training of workers will be needed at the project site to assure that work tasks are properly carried out?

The food-wage resource works most effectively in combination with other resources: management, technical, material, and logistical resources, in particular. What technical know-how is needed, at which points, in carrying out a work task? What tools and other materials are required? When? What other resources are anticipated? How much support can the host government provide?

In many developing countries, the government infrastructure at regional and local levels is not strong enough to adequately support food-wage activities.

Moreover, tapping the existing government infrastructure for supervisory and technical manpower to manage food-wage work sites could hinder other development efforts in the area. A food-wage activity may well result in an earth dam, but if scarce government personnel have been enlisted to supervise workers, what is the cost to other regional and local development priorities, and essential services to urban and rural communities?

A good approach is to integrate project food aid resources into ongoing infrastructure projects. Project designers should also seek ways of separating technical personnel from management of resources.

Resource Assistance

A Role for PVOs and Peace Corps

It may be neither appropriate nor feasible to rely on existing government infrastructure for resource assistance with food-wage activities. If not, where can this assistance come from?

A strong PVO or Peace Corps role may be critical, at least initially, to the successful design and implementation of food-wage activities.

Certain policies will help assure that the food-wage resource does not cause waste or inefficient use of other scarce resources, such as technical assistance or financial assistance.

Separate Technical Support From Logistical Support

When a government technical agency, such as the extension service or the forest service, becomes the sole implementer of a food-wage supported project, and allocates scarce personnel, vehicles, and other resources to food aid management and support, its technical effectiveness diminishes.

Foresters and health technicians need to provide technical supervision and skill training, not distribute food rations.

Encourage a Stable, Capable Food-Wage Labor Force

Close supervision and constant training are required when labor turnover is frequent, or when food-wage laborers cannot perform work tasks adequately. These situations undermine production targets and tax management—which most projects can ill afford.

Rotating food-wage laborers out of their jobs after a two- or three-month period, for example, may maximize the number of food aid participants, but it may not maximize the use of other resources, or allow skill development to occur.

Incorporate a "Shift Work" Approach Whenever Possible

There are several advantages to the *shift work* approach to worker employment.

- It doubles the number of participants with essentially the same management structure.

  With shift work, better coordination of workers will be required, but line supervisors can oversee up to twice as many half-time food-wage laborers as full-time food-wage laborers.

- It allows participants to build skills and capital resources.

  Building skills and capital resources takes time. Shift work keeps people in their jobs longer and allows them to carry on with other capital-building activities, such as farming.

- It responds to the needs of women.

  Half-time food-wage jobs enable women with children to combine wage labor with their multiple roles as mothers and producers.

- As a project approach, it is more sustainable over the long term.

  In countries with many food aid participants, limited host government and donor resources, and limited management capacity, the food wage applied to a shift work approach enables other scarce resources to extend further.

Technical Support

The special value of the food-wage resource is that it can support development activities—tree planting, dam construction, road building—as well as supply food commodities to people in need. Creating these developmental assets, though, requires good technical know-how.

With few exceptions, reliable and competent technical support over the life of the food-wage activity will be vital to successful results. In the following five areas, technical support is particularly crucial for food-wage supported activities.

Technical Design

Is the task design technically sound? Is the selected site an appropriate one? Will the potential benefits justify the expenditures?

These questions will vary in significance, depending on the task and the sector area. However, the key issue remains the same: the food-wage can be a major contributing factor to where and how a work task gets carried out, but the primary determinant—as with any development activity—should be technical feasibility and appropriateness.

Work Task Planning

Technical input during work-task planning is critical to achieving optimal organization, sequence and timeliness of work tasks, required tools, and other resources.

Developing standard work norms and performance standards for task activities is another function that may require technical input. How many meters of antierosion ditches can a food-wage laborer be expected to dig in a day? How many plastic bags for tree seedlings can a nursery worker fill in a day?

In addition to facilitating planning, standard work norms will also help determine worker qualifications, and help assure that a clear linkage is made between the food rations and the work performed.

Technical Supervision

Daily or even weekly supervision by technicians may be unnecessary for every work task, but there may be critical periods when direct technical support and supervision would greatly enhance the quality and impact of the results. These critical points will need to be identified, planned for, and scheduled.

Technical Skill Transference

Building technical capability at the local level—to lessen reliance on outside services—is a goal of most development projects. Technical skill transfer is one primary way that the food-wage resource can help people break away from dependency.

Technical skill building should be targeted at two levels during work task implementation:

- work site supervisors and other field personnel
- the food-wage participant

In a food-wage supported community tree nursery, for example, the site supervisors should receive periodic training in nursery management; and the food-wage workers—in addition to training in routine nursery maintenance—should also learn seed collection and storage and fruit tree propagation.

Work Task Monitoring and Evaluation

From a technical standpoint, monitoring and evaluation of the work-task accomplishments in food-wage projects serve two important functions: reinforcing performance standards established with workers, and assessing the lessons learned for future planning. The exercise should indicate how closely work task achievements have come to the work norms established for the project and can indicate realistic work norms and incentives to use in future activities.

Technical support in these areas will give much greater assurance that the project using a food-wage resource will achieve development impact.

5.3.6 Maintenance

Key Factors To Consider

How will maintenance of the infrastructure be assured following the completion of construction?

What entity will organize and supervise maintenance activities, including the procurement of any needed materials and equipment?

How will the costs of maintenance be financed?

These questions must be considered and resolved during the project design process. If they are not, it is highly unlikely that the infrastructure created will be available for its projected life and realize expected development benefits.

In cases in which structures are on private land, for example, conservation terraces, designers must make sure that the economic benefits of maintaining the structures are sufficient to encourage the landowners to do so. Where individual economic benefits are insufficient to cover the costs of maintenance and the structures are critical to overall efforts, e.g., in cases of watershed management, appropriate incentives and assistance to landowners are indicated. Training in maintenance techniques should be included in project activities.

When public goods such as feeder roads are concerned, a governmental or quasi-governmental body generally is responsible for maintenance. The organization that will be responsible for maintenance should be identified and efforts made to create any additional resources it will need to undertake the new activity.

Managing and financing of maintenance is a chronic problem for government departments already struggling to meet existing commitments with limited budgets. Wherever possible, local financing (e.g. road user charges) and organization of maintenance should be considered.

Decentralization of responsibility for maintenance to the local authorities directly benefiting from the infrastructure may assist in improving maintenance performance.

6. LONG-TERM INCOME GENERATION

6.1 INTRODUCTION

Long-term income generation is one of the results desired from most development projects. It is usually a generalized benefit, as in the case of additional sales of agricultural produce resulting from the construction of a road. In contrast, the projects discussed in this chapter have the specific objective of increasing the incomes of particular groups or individuals by creating resources or enterprises.

LONG-TERM INCOME GENERATION PROJECTS USING A FOOD AID RESOURCE

A Definition

The primary objective of these projects is to generate a continuing stream of *net* income for the poor. The approach goes beyond welfare to establish economic independence. The principal features of these projects are:

- The participants are the traditional beneficiaries of Title II commodities, i.e., individuals or households at or below the poverty line.
- The emphasis is on creating continuing net income increases following the phaseout of food and other resources, although incomes may be increased temporarily as a result of project interventions.
- Capital resources are created to increase incomes from self-employment, or business enterprises are established or expanded to create additional jobs.
- Food is used as a resource to address critical constraints including:
  - insufficient savings
  - aversion to risk taking
  - insufficient working capital
  - funds to compensate workers during infrastructure construction
  - insufficient skills

When the problem analysis is performed, planners should establish that viable income-generating opportunities exist. In addition, the designers need to confirm that the intended project participants are capable of achieving desired levels of income from the activities.

Questions to consider include these:

- What is the purpose of long-term income generation? Is it to ensure that certain groups or individuals have an improved standard of living, educational opportunities, better diets, etc.?
- Are there viable income-generation activities that can be promoted in the area concerned?
- Will the viable activities benefit the groups or individuals the project wishes to reach?

In some situations, the activities that are viable may not result in benefits for the groups the project wishes to reach. For example, if the objective is to improve the nutrition of mothers and young children, initially the planners may not identify viable enterprises that will provide benefits to those groups.

In this case, some other type of project intervention may be needed in the short term such as on-site feeding associated with the provision of child survival services (see chapter 7). However, the sponsors should continue to seek ways in which economic independence can be established for the project participants in the long term.

Long-term income generation requires the establishment of fixed capital. In addition, working capital is generally needed to carry an enterprise through a startup period until it becomes profitable. Thereafter the enterprise generates the working capital necessary to carry on the activity. This situation is distinct from that of the infrastructure projects described in chapter 5, where capacity is created and revenues such as taxes or user fees are generated to maintain the capacity.

Recognizing the difference between fixed and working capital is essential to the design of successful long-term income generation projects. In many cases, food aid is provided as working capital, but the project does not create fixed capital or the conditions necessary for long-term profitability of the activity. Food aid must be provided indefinitely for the activity to continue.

Many of the problems of establishing viable income-generating activities can be overcome if planners identify successful projects and use the food-aid resource to expand them. The participants the planners wish to benefit can be included in the successful activity. Food aid can replace certain of the cash requirements and the cash can be used instead to create additional fixed capital.

The decision to use a food resource should be made carefully, even when the planned project is intended for a food deficit area. A determination must be made that food is

an appropriate resource to use in the specific activity and with the particular individuals concerned. When food is used in an income-generation project, it generally represents a minor percentage of total project costs. However, the food resource may be critical to project success, as fear of hunger is an important cause of risk aversion behavior.

Section 6.2 provides examples of project activities involving both the provision of fixed and working capital and discusses the ways in which food aid can support the activities. The design issues specific to income generating projects are discussed in Section 6.3.

6.2 PROJECT ACTIVITIES

Long-term income generation projects include any venture in which capital resources are created that will generate a stream of *net* income after deductions are made for operating costs and capital replacement. Planting tree crops, introducing new agricultural practices, and establishing business enterprises are examples of income generation projects. The activities involved in the project depend on the resources needed for the venture and the availability of the resources at project startup. Typical activities involved in projects include:

- procuring capital resources (e.g., trees, seedlings, tools).
- ensuring sufficient skilled workers are available (e.g., workers knowledgeable in pruning or grafting trees, managers and workers for clothing production)
- providing working capital to support the enterprise through the initial stages until income is generated (e.g., caring for trees, developing a product and producing it)
- arranging for the marketing of products (e.g., trees, tree products, fruits, honey, sweaters)

Other activities may be added depending on the resources needed for the project. For example, funds are required for the purchase of capital equipment. The participants may already have savings, or the project may provide investment funds on a grant or loan basis. A third possibility is that the first activity of the project may be to assist the participants to save the funds needed for investment.

A food resource can make a contribution to several of the components involved in long-term income generation activities. However, it must be emphasized that food alone is not sufficient to carry out these projects. A mix of food and cash will be required for most investments. Funding for personnel, technical assistance, training, and materials are all essential to the success of these types of activities.

The potential uses of food are outlined below. This User's Guide is intended to provide a starting point for planning activities. They are not intended to be a catalog of ready-made activities; the activity or mix of activities selected for use in a specific

project should be tailored to individual circumstances using the process set out in chapters 2 and 3.

6.2.1 Food for Savings

Savings made possible by the income value of food can occur in all projects using a food resource irrespective of the objective of the project. Savings can be created in child survival or primary education projects, for example, as well as in income-generation activities. The savings may be used for income-generating activities in the future, either on a project or an individual basis, or they can be used for other purposes. An example follows.

School lunches represent income in kind to the parents of school children if the food replaces meals the children would otherwise have eaten at home. Parents may be charged a fee during the period when the food used in the lunches is provided from PL 480 resources. The money can be saved and used for a variety of purposes, for example, to establish a local enterprise that will produce the meals after project phaseout, or to purchase teaching materials.

This use of food seeks to capture all or part of the income transfer effect of commodity donations to create the savings needed for fixed capital investments or as working capital. For example, workers receiving training in skills needed for a planned income generation project may receive a food incentive to attend the classes. They are encouraged to save the equivalent in cash to invest in the enterprise.

Project designers should consider the potential for including this component in all food-aided projects. Savings can create the conditions for local takeover of projects and avoid the open-ended delivery requirements that characterize many food-aided activities developed in the past. At a minimum, project personnel should hold discussions with participants "up front" to advise them of the short-term nature of the benefits they will receive and help them identify how they can use the benefits to improve their situation in the long term.

Following are two examples of investment activities in which savings are used for long-term income generation.

Using Savings for Capital Investments

Savings for capital investment accrue when participants receive food donations and save all or part of the income they would otherwise have spent on food. These savings occur prior to the startup of income-generating activities while participants are receiving food donations. The participants may be creating resources needed for the implementation of a planned venture. For example, they may be attending training courses or constructing infrastructure such as roads or buildings.

Alternatively, the participants may be involved in an activity with other development objectives. For example, mothers receiving food donations through a child survival

project are organized into clubs. A savings and credit association could be one of the activities of the club.

If savings and loan facilities such as credit unions are present in the area, project staff need only facilitate the participants' access to the services. For example, personnel can provide information on location of facilities, methods of opening accounts, benefits, and so on, and mediate between the participants and the institution.

If no appropriate savings and loan facilities exist, the project will have to create them. Personnel are needed to organize the savings and loan associations, and training is required for local managers. If the participants are involved in a project with a primary objective other than income generation, additional personnel are required for the savings activity: health service personnel, for example, should not be burdened with establishing savings and loan associations for mothers in a child survival project.

Using Savings To Expand an Existing Enterprise

When enterprises are already operating, food may be provided to create savings for new or additional capital investments. For example, a partial food wage is provided to workers in a cooperative, and the cash saved by replacing it with food is placed in an investment fund.

6.2.2 Food To Reduce Risks

Food can be used in several ways to reduce the risks involved in new activities to increase future income. These risks include hunger, economic loss from the investment, and the psychological aversion to innovation (changing behavior).

Examples are—

Investment in Tree Crops

These projects include all situations in which trees are planted to provide a future income stream.

Private woodlots, fruit trees, rubber trees, and spice trees such as cloves are all examples of trees that yield an income after an initial growing period. In these cases, food may reduce risks in several ways.

Land may be taken out of crop production in order to plant the trees. Even when the land is of low productivity, marginal farmers may need the food crop production to meet basic food needs. They should be encouraged to plant trees only if the future income from the trees is significantly greater than the value of the lost production, or if other factors are involved (for example, the trees are needed to combat soil and water erosion). A food incentive for planting the trees and caring for them until they can survive on their own (a minimum of 2 years) can offset lost production.

Another situation is that of households with access to land unsuitable for food crops but adequate for tree planting. If the households are involved in day labor to earn incomes needed for subsistence, they cannot afford to invest the time required to plant and tend the trees. In this case, food compensates for lost wages.

Introduction of New Practices and Cash Crops

The practices concerned may include new agricultural techniques such as winter plowing, or conservation measures such as terraces. Farmers must invest additional time, labor, and capital in these innovations, and the return is uncertain.

In the case of terraces, land is initially lost from production, although yields may be increased or protected in the future. Introducing new cash crops is another example—similar to that of the trees discussed above. However, in this case, the crop will generally yield an income in a shorter time period. Food compensates for the food losses, time expenditure, and fear of innovation.

Two other methods may be used to facilitate the introduction of new practices or crops: *crop insurance* and *food banks*.

Crop insurance is provided on various terms. An example is that if a new crop fails, food can be provided to tide the household over until the next year.

Food banks can be established to provide food stocks in emergencies, or to stabilize supply throughout the year as a means of eliminating post-harvest glut and pre-harvest shortages. Donated food can create a stock that is used in times of need and repaid with local produce after the harvest. Commodities can also be provided on a loan basis with repayment in local produce after harvests, and the commodities used to establish food banks in additional villages. In this case, the amounts borrowed would be repaid with interest, thus maintaining the stock while providing the food needed for the repayments.

6.2.3 Food for Working Capital

These are situations in which participants are provided food so they can *start up* income-generating ventures or *start over*.

Most business ventures require an initial investment of time and money with a waiting period before income is realized from the activity. Food resources can help to support the individuals involved in an enterprise during the waiting period. For example, in an egg production enterprise, day-old chicks may be purchased, and a food wage provided to the proprietors to care for the chicks so they are not forced to take day labor elsewhere.

The food wage would continue until the chickens are old enough to lay eggs. The eggs must be sold at a profitable price so the funds can be used to serve as working capital. It may take one or two cycles of chicken raising before this is achieved.

Starting over includes circumstances such as resettlement onto new lands, or replacing capital goods that are aged or faulty, for example, removing diseased tea plants and planting new ones. Food is also useful in post-famine or disaster situations when households are returning from camps to plant their fields or restart their businesses.

6.2.4 Food To Compensate Workers

There are a variety of circumstances in which food is used to compensate the workers in an income-generating activity. Workers creating the infrastructure needed by an enterprise can be compensated with a food wage. Examples of infrastructure are storage facilities, access roads, terraces, and windbreaks.

A food wage can be used also as an interim measure in an enterprise that will eventually pay cash wages. For example, a community-owned tree and seedling nursery may compensate workers with a food wage until sufficient revenues are generated by the nursery to convert the workers to a cash wage.

6.2.5 Food To Facilitate Training

Income-generating projects usually involve heavy investments in training. The types of training required include savings and loan management, bookkeeping, management of business enterprises, and new skills for production activities. Training may also be provided in skills needed to take advantage of job opportunities.

Food can be provided as an incentive to participate in training, possibly in combination with savings activities as noted above. The donation may go to the trainee or to the household of the trainee. Food commodities may be used also to provide meals at training centers.

6.2.6 Food for Monetization

Food can be *monetized* to create capital required by a project in the form of cash. Monetization requests should follow current guidance for this use of food. Approval of monetization requires that the project designers justify the need for the funds and demonstrate that they are not available from other sources. Closed monetizations can also be used to create capital funds for activities. For example, individuals working in an enterprise may be provided an opportunity to purchase donated foods at subsidized prices and the cash used to support the enterprise. It is U.S. Government policy for any commodity sales to be made at regular commercial prices. Waivers are required for subsidized prices and should be applied for at the time the projects are presented for approval.

6.3 PROJECT DESIGN ISSUES

Certain of the issues of food specification and usage discussed in chapter 3 are particularly relevant to long-term income generation projects. See section 3.3.3. The critical issues specific to income-generating projects are examined below.

6.3.1 Matching Project Activities to the Target Group

Key Factors To Consider
What is the target group of the project?
What gender issues should be considered in selecting the participants?
What are the attributes of successful project activities?
Do the intended participants have the necessary qualifications or resources for successful project activities?

Consideration of this set of questions is essential to designing long-term income generation projects that achieve their objectives.

The target group is the intended ultimate recipients of benefits from increased incomes. Specifying the target group is an essential first step, as it will narrow the range of project activities to be considered.

Is the target group poor households, particular types of poor households (e.g., the landless), or individuals within households, such as young children? Planners should attempt to ensure that project activities are appropriate for the individuals in the target group, or for those whose incomes will most benefit the target group. Otherwise, the projects may be unsuccessful, or the activities may be monopolized by groups that already enjoy higher incomes.

Specifying the gender of the intended participants is important for two reasons. First, if the target group is young children, women's incomes are known to be most closely related to improvements in the situation of children. Second, given the division of labor within societies, some activities may be considered unsuitable for the intended participants. The planners may decide to undertake the activity anyway, but should include measures to overcome opposition.

The attributes of successful projects include such elements as the quality of the products produced, a ready market for the products, the relation of the production schedule to the market for the products, the efficiency of production, etc. The

specification of these elements will assist in determining whether the intended participants have the necessary resources or qualities for a successful project. These include factors such as:

- skill level/experience needed for the activity
- income level
- access to land/size of holding/quality of land
- educational level
- physical strength and health

If the participants lack the necessary resources or education, it may still be possible to undertake the project. In this case, the project activities would include arrangements to provide the necessary training or access to resources.

6.3.2 Profitability of Activities

Key Factors To Consider

Is there a market that can absorb the products at a profitable price?

How will the product reach the market?

Is there an adequate supply of raw material at reasonable prices?

What net profits will remain after deductions are made for costs such as subsidized transport and depreciation of equipment, as well as those that may be needed to expand the enterprise?

The answers to these and other questions should be included in a business plan that outlines projected income and related costs. Because projections are very difficult, it is best to underestimate income and overestimate costs. This conservative approach is likely to produce more realistic and accurate predictions.

If these questions are not addressed during the project design, it is highly unlikely that the activity will result in increased incomes in the long term. A useful way to approach the analysis is to identify reasons why the enterprise is not already in operation.

Increasing the supply of timber in a rural area, for example, may rapidly result in a glutted local market and falling prices. Transportation costs may prohibit access to

more distant markets at competitive prices. If these problems are anticipated in advance, a variety of solutions are possible. One possibility is producing a range of products, some suitable for the local market, and others which are lighter, higher value items, for sale in more distant markets. Advance planning is critical, however, as a venture can easily fail before remedial action can be taken.

Similarly, raw materials may be available at reasonable prices before project startup. However, the activity may stretch supplies and result in higher prices. Here also, the project may need to include activities that assure the availability of supply.

It should be noted that these constraints represent forward and backward linkages from investments which can result in further possibilities for gainful employment. With adequate planning, potential sources of failure can be turned into opportunities for income-generating possibilities.

Finally, it is also critical that planners distinguish between profits and net profits. What portion of profits must be reinvested to maintain the enterprise, including replacement of all equipment? Investments may be needed to replace capital goods or equipment, or to expand into new activities. Is the remainder sufficient to warrant participant involvement in the activity?

6.3.3 Control and Disposition of Increased Income

Key Factors To Consider

What will happen to income if the project does not try to influence how people will use it?

Who controls the income?

- within the enterprise
- within the family

What portion of income will be consumed and what portion invested?

The answers to these questions are critical to ensuring that projects achieve their objectives. Discussions of the questions with representative of local groups and with the intended participants during planning and project startup can create a better environment for project implementation. The information is also useful in sharpening the choice of income-generating activities and identifying needed project components.

It is possible that the project need do nothing about the control and disposition of income from the enterprises. Selecting who participates and the type of activities to implement may be sufficient to ensure the income reaches the target group.

In many societies, however, traditional leaders may control the income from group enterprises unless special arrangements are made. In these situations, training is needed to enhance the competence of other participants. Training may be required in managing cooperative enterprises. Alternatively, it may be necessary to employ professional managers.

The participants will need to be informed also of the minimum amounts required for reinvestment, the options for using the funds, and the impact of different levels of reinvestment on future improvements in income. This training may need to include managing personal as well as business income.

6.3.4 Estimation of Resource Requirements

Key Factors To Consider

What resources are needed to overcome constraints to implementation? How can they be provided?

What type and quantity of food commodities are needed, and for how long to achieve efficient motivation of participants?

How long will resources be needed to achieve sustainability of the enterprise?

A critical design issue for income generation projects is the provision of sufficient resources for successful activities while retaining local initiative and commitment to the enterprise. In relation to specification of rations, the issues of using food for income transfer and incentive payments are particularly important. (See the discussion in chapter 3, Step 3. Ration Specification.)

Long-term income generation activities require resources which are in short supply in developing countries. Technical and financial expertise, capital funds, training, and materials are all generally required. Food may substitute for a portion of the cash requirements, but it is not sufficient for successful implementation of activities. Agencies that primarily have a food resource available will have to develop partnerships with local government bodies, local NGOs, and bilateral or multilateral donors to assure inputs of needed resources.

A long-term commitment of resources is generally required for these projects. However, resources should not be supplied for too long as it can stifle local initiative. Project designers should tailor the schedule of inputs to the minimum required for project sustainability.

The time period required will depend heavily on the nature and ownership of the enterprise. Farmers establishing private woodlots or rubber tree plantations may need an incentive for only 2 to 3 years. By then, it is apparent the trees will survive

even though it will be several more years before the trees can be exploited. Alternatively, a community-owned tree nursery may need support for 7 or 8 years before its revenues will be sufficient to sustain the enterprise. The appropriate balance between individual and community enterprise is often a key issue in project design.

6.3.5 Technical and Management Capacity for Successful Project Implementation

Key Factors To Consider

Are personnel available to

- prepare economic feasibility studies?
- assess loan applications?
- keep financial records?
- provide appropriate staffing of the enterprise?

If these personnel are not currently available, can others be trained to carry out these tasks?

Does the project have the capacity to provide necessary technical assistance throughout all phases of implementation given that technical skill requirements may change?

Technical and management personnel are a critical input in long-term income generation projects. The factors identified above should be considered as the project design evolves. The availability of personnel should be assessed and arrangements made either to use the personnel of existing organizations, or to include individuals with the necessary skills on the project staff.

6.3.6 Providing Investment Resources as a Loan or a Grant

Key Factors To Consider

How poor is the target group?

How long will it be before a profit is realized?

Is the project a short-term or a long-term activity?

Can loans be administered efficiently?

Does the donor wish to recover funds for use elsewhere?

As a general rule, providing investment capital on a loan basis is a good way of ensuring that participants are fully committed and that financial feasibility will be established for an activity. Grants do not prepare people for operating in a normal business environment.

However, there are several other factors to consider when deciding whether to provide investment funds as a loan or a grant. These factors are also indicators that will facilitate preparation of a timetable for converting from grant to loan funding.

A very important factor is the poverty of the target group. If the participants are very poor, risk aversion behavior may be so strong that only the more prosperous will participate on a loan basis. In these situations, participants may have to receive grant assistance at least for an initial period. This will provide an opportunity for the activity to demonstrate its viability. Later expansions of the activity may be on a loan basis.

Loans are more acceptable when the return on an investment is expected in a relatively short period of time. If it will be several years before a return, grants may be needed to encourage participants to start. Conversion to loans may be possible for the expansion of the activity once it is off the ground. Earlier profitable experience in a neighboring area can facilitate willingness to make loan commitments.

When grants are given, it is important that participants understand the need to amortize costs of any capital items purchased. Failure to accumulate funds for replacement of these items means that a new grant will become necessary or the business may fail. Preparing the business for independent, profitable, and unsubsidized operation is a key aspect of project design for income-generation activities.

Other factors to consider relate to the nature of the project. Loans take time to set up and require personnel for administration. Making loans can be more expensive than providing grants, especially if the activity (or the project's involvement in the activity) is short term. However, if the donor organization intends to undertake similar activities over the long term, and wishes to recover funds for use elsewhere, the investment in loan management and personnel may be justified The equation is changed, also, if local financial institutions are present that can administer the loans.

7. CHILD SURVIVAL

7.1 INTRODUCTION

CHILD SURVIVAL PROJECTS USING A FOOD AID RESOURCE

A Definition

Child survival projects focus on the most vulnerable groups, pregnant and lactating women, and children under 3 years of age. The main approaches used to improve the situation of these groups are—

- increasing coverage of the target population with proven interventions, especially oral rehydration therapy (ORT), immunizations, birth spacing, and focused nutrition activities, including growth monitoring, supplementary feeding, and nutrition education
- improving food security at the household level
- enhancing the status of women and their capacity to earn income
- using Project Food Aid in a variety of ways to address critical constraints:
  - to provide a nutrition supplement for high-risk family members
  - to supplement household food availability as a motivation for mothers (households) to participate in child survival activities
  - as a wage element for infrastructure construction to increase accessibility of health services (clinics, water and sanitation facilities, etc.)
  - as an incentive for training
  - as a motivation for female literacy training
  - creating income-generating activities, particularly those for women
  - for monetization to provide cash for other needed activities or materials

Reducing mortality and improving the health and nutritional status of women, infants, and young children are essential for sustained development. These conditions are also desired outcomes of development activities. Maternal/child health feeding programs provide food supplements to bridge nutritional gaps in the diets of pregnant and nursing women and children under age 6. Often these efforts are undermined by problems such as severe food shortages for the entire household, childhood diseases interfering with growth and utilization of food, or the failure to reach infants in their critical first years of life. These constraints are now being addressed through the use of food resources in programs that have a more permanent effect.

Child survival is a priority development problem when malnutrition and child mortality rates are already high and in situations where malnutrition and child mortality are increasing. The problem analysis phase should include a detailed description of the food, nutrition, and child mortality situation and the major factors contributing to the problems. Questions to consider include the following.

- What geographic regions are most affected by food shortages, malnutrition, and high or increasing mortality rates? What population groups are most seriously affected, e.g., urban slum dwellers, landless laborers, plantation workers?

- What are seasonal patterns of malnutrition, food availability, and death rates? Are the patterns of these factors related?

- Is there evidence of a high prevalence of low birth weight, and to what extent are maternal/prenatal factors involved?

- What are the major associated conditions and causal factors in growth failure and child mortality? Do contributing factors include household food insecurity; low access to prenatal care/immunization/ORT/growth monitoring/nutrition education?

- Are there harmful practices that may contribute to child malnutrition and mortality?

- What are the socioeconomic characteristics of households with most frequent food shortages, high malnutrition and death rates, and low participation in health services?

This information is critical to establishing project objectives and will assist in planning activities that are tailored to the specific situation in the community or country. The data will further provide a basis for targeting resources to the high risk areas.

Section 7.2 describes potential project activities, providing an overview of the kinds of activities that may be included in projects, and the ways in which the food resource can be used in the activities. Section 7.3 reviews the specific project design issues of child survival projects.

7.2 PROJECT ACTIVITIES

The core activity of child survival projects is ensuring full coverage of the target population with a set of proven interventions. The combination of interventions chosen may be determined by the expertise of the implementing agency, the nature of priority problems in the population, and/or gaps in existing services. Interventions include:

- immunizations against childhood diseases
- oral rehydration therapy
- a focused nutrition package, including education, growth monitoring, and supplementary feeding
- child spacing

Agencies using food resources in a child survival program may enlist one or a combination of activities, such as community motivation and mobilization; education of mothers regarding home-based activities such as ORT and infant feeding practices; training volunteers and health outreach staff; provision of supplies and materials such as vaccines/oral rehydration solution (ORS)/growth charts/weighing scales/food supplements; supervision and technical assistance; program management; and needs assessments/ monitoring and evaluation, along with prevention of and recuperation from malnutrition.

These interventions are emphasized in child survival due to their effectiveness in addressing the problem. Other activities can supplement the interventions and enhance their achievements and sustainability. These include:

- Building health infrastructure and water/sanitation facilities.
- Activities that enhance the status of and economic capacity of women, as increases in women's incomes and knowledge are highly correlated with improvements in child survival rates. A wide variety of activities can be supported, including female literacy training, agricultural extension, and other income-generating projects for women. Home gardening, cottage industries, food processing, and marketing are particularly effective.
- Activities to increase food security at the household level. This may be tackled in many different ways, depending on the circumstances of the area. Increasing production and availability of food throughout the year through horticulture, home/community gardens, intercropping, and food preservation; increasing/stabilizing market availabilities (e.g., through food banks); increasing effective demand through increasing income. In emergencies short-term food shortages can be dealt with through direct distribution of food through health facilities and other outlets. See section 7.2.2.

If household food insecurity is a primary constraint, income-generating projects may be an even more effective intervention than child survival activities. See chapter 6 for details. While such a program is getting underway, health facilities and other institutions can be used to distribute food commodities to severely affected households, as a short-term measure.

The following sections identify the ways in which the food resource can be used to support project activities directed to increasing child survival. *Food alone is not sufficient for a child survival activity.* The availability and quality of the other resources needed to carry out the interventions described above are critical to project success. This includes trained personnel to supervise activities and administer immunizations, ORT, and growth monitoring; supplies; and technical assistance.

The following is not a catalog of all possible activities, but is intended as a starting point for project designers. The specific activity or activities included in a project should be tailored to the individual circumstances in the country, using the process set out in chapters 2 and 3.

7.2.1 Food To Prevent Serious Malnutrition

Food can supply a source of missing calories and nutrients. A nutrition supplement provided to reproductive age women and children up to 3 years of age in conjunction with prenatal care and child survival interventions prevents malnutrition and infant/child mortality. Food can be used to prevent serious malnutrition in at-risk children as well as recuperate those who already are malnourished. Food can also be used during the convalescent period, when children are recovering from an illness and need increased nourishment for catch-up growth.

The categories of individuals who may benefit from a nutrition supplement include

- adolescent girls
- pregnant women
- lactating women
- at-risk children ages 6 months to 3 years
- seriously malnourished children
- children recovering from illness and/or post diarrhea

The food resource may be provided through free food distributions for *on-site feeding* (at a center providing child survival services, for example), as *take-home rations*, or as an ingredient in processed foods marketed commercially (subsidized for low income families) or distributed free. In both cases, assuring *incremental* consumption of the ration is critical for achieving nutritional impact. Supplementary food is often

substituted for something previously fed to the child, or shared with other family members, unless the project includes successful education and motivation efforts addressed to encouraging incremental consumption.

7.2.2 Food To Expand Child Survival Coverage

A direct form of motivation is to provide food rations when mothers bring their children to centers providing child survival services. Evidence from a number of countries indicates this is an effective way of increasing participation rates in the short term while the food resource is available for distribution. This provides an opportunity to demonstrate the benefits of participation in child survival activities, thus increasing the possibility that women will continue coming after distribution ceases.

Food serves as a motivator to encourage participation. Food may act as compensation for transportation costs and lost income due to time spent attending clinics and education activities, and as an income transfer to poor households during severe shortages.

7.2.3 Food for Child Survival Workers

Food rations can be used as an incentive for volunteer workers delivering child survival services. Examples are individuals providing growth monitoring services and those promoting immunizations or child spacing. In this case also, the workers may be involved in specific child survival projects, or in projects with other primary purposes. An example of the latter situation is the inclusion of a post for an individual to provide these services on the roster of workers in a food wage activity.

7.2.4 Food for Community Motivation

A food incentive can be provided to communities to motivate them to establish a community-based organization and site for child survival services. For example, food that will serve as the basis for a village-managed food security stock may be provided as an incentive to establish child survival services.

The food can be delivered in tranches following completion of specific activities, or a grant/loan of monetized food funds may provide seed monies to start up a program. Communities can create a range of services from day care for young children, ORT and growth monitoring groups, women's skills training activities, women's marketing and food processing cooperatives, to village-based rehabilitation of severely malnourished children.

Food can also act as an incentive to increase child survival services in projects organized for other development purposes. An example is a construction project using a food wage in which women are encouraged to bring their children to the work site periodically for immunization, growth monitoring and the like.

Education for women on such topics as ORT and birth spacing can also be provided. Women typically will not walk long distances or pay for these types of preventive services. Whether incentives will be needed in addition to the availability of services at the site depends on individual circumstances such as the difficulty involved in bringing children to the site. If an incentive is needed, women may receive additional compensation or paid time off from work to participate in the activities.

7.2.5 Food To Enhance Food Security at the Household Level

Activities that improve the long-term food security of households by increasing the quantity and quality of food available and assuring a supply of sufficient food throughout the year can help in meeting an essential condition for improving child survival. These include food grain, livestock, and cash crop production activities and other income-generating activities (see chapter 6).

Take-home rations distributed at child survival centers or at nearby projects using a food wage are a short-term measure while longer term programs are getting underway, or during periods of sudden shortage. These may be supplied each time a mother visits a health facility or at a work site at times of the year when supplies are low, e.g., pre-harvest. Even though these rations may be shared by the family, additions to the overall family food supply helps ensure that mothers and children receive more food too. Larger food rations during hungry seasons can be particularly important to prevent an increase in malnutrition and death.

Food banks can be created in villages, providing a location for post-harvest storage of crops (thus avoiding sales at low prices during a period of glut). The food can be placed in the banks and withdrawn later in the year, and fees levied to cover management and administration.

A different arrangement is when food is sold to the food bank and purchased back later at a price that reflects the purchase costs plus expenses rather than current market prices. A stock of food to supplement village commodities may be provided as an incentive to establish the food bank. Monetized food can be used to build storage facilities or to start a revolving fund for recurrent costs.

Projects where a food wage is provided can target food deficit households for inclusion in their employment activities, thus increasing effective demand in households that would otherwise lack the resources to meet their food needs. The food resource helps to meet immediate needs. In addition, when the project creates the potential for long-term income generation, it will help assure future food security.

7.2.6 Food for Income Generation for Women

Income generation activities targeted specifically to women can help sustain child survival projects and their beneficial impacts over the long term. There is considerable evidence that nutritional status improves when there are increases in

the income that women control themselves. These activities can also serve as a location for providing child survival services and education activities.

Chapter 6 discussed the variety of activities that can be organized. These should be selected and structured to ensure that a permanent stream of women's net income is created.

7.2.7 Food for Infrastructure Creation

A variety of development infrastructure will support child survival activities. A food wage or food incentive can be used to facilitate the construction efforts.

The following are examples of the types of infrastructure that may be considered.

- service delivery structures such as clinics, community-based centers, female literacy classrooms, and skills training centers
- water and sanitation facilities such as safe water structures, latrines, and sanitary food storage and processing facilities
- appropriate technology related to child survival such as mud stoves for boiling water

7.2.8 Food for Training

Food can support training efforts in a variety of ways. It can be used as a component of the remuneration for trainers or as an incentive to participants attending training programs. It can also be used to provide meals at training sites.

Training is an essential component of child survival activities. Training is needed to upgrade the skills of adolescent girls and mothers as well as service providers.

Training for adolescent girls and mothers that will have a beneficial impact on child survival include literacy training and skills training for economic benefit (marketable skills). In addition, training can increase knowledge and application of the core interventions, that is use of ORT, immunization, birth spacing, and the like.

Training for health workers, including family planning specialists, is required for individuals providing traditional services (e.g., traditional birth attendants) as well as modern sector workers. Skills training is needed in the methods of providing quality services both in clinics and through outreach programs.

Training activities can also serve as a means of increasing the competence and status of village workers who are often volunteers or receive token remuneration. Other individuals who can benefit from training are child care providers such as paid babysitters.

7.3 PROJECT DESIGN ISSUES

The issues discussed in this section are project design issues specific to child survival projects. They should be used in the design process to supplement the general issues of design and implementation discussed in chapter 3.

7.3.1 Identification of Project Components

Key Factors To Consider

What child survival activities are already underway in the area?

Are there established feeding programs?

Is there serious malnutrition? Can food aid assist in combating the problem? If so, what should be the role of food aid?

Should food be used as an incentive for participation in child survival activities?

The components to include in a child survival project will depend on the situation in the local area and the activities that are already underway. Once project objectives are established, specific project components, staff resources, and technical assistance requirements can be identified. It is assumed that a food needs assessment was carried out which indicated that food aid was an appropriate resource to use in the area. The problem for the project designers is to determine the best use for the food and to identify the total package of activities to include in the project.

In areas where there is already an established feeding activity, the impact of that activity can be increased significantly when other child survival services are added. The planners should begin by reviewing the uses made of the food to determine whether these are appropriate or whether to redirect the food to other uses. In addition, project management should determine if it is feasible and cost effective to add the other important services directly to the feeding activity or whether the activity managers should act as facilitators to help their target communities gain access to services provided by other infrastructures. The questions to be considered include the following:

- What other services are critical for increasing child survival of target groups? For example, ORT, immunizations, nutrition education.

- What additional services can the existing feeding infrastructure deliver; what additional staff, technical assistance, and resources would be needed? What other infrastructure are available to deliver child survival services?

- What role should the program play—given its present capacity, availability of other service providers, and costs of alternatives, e.g., provider of services, community mobilization?

In areas where malnutrition is high and access to proper food is low, supplementary feeding along with growth monitoring and nutrition education can increase the impact of other child survival services. The designers should determine the need for food to address the problem and the role of food aid. The following factors should be considered.

- What are major causes of malnutrition by target group, e.g., late weaning, short duration lactation, lack of protein sources for weaning foods, taboos that inhibit optimum food consumption for pregnant women?

- Is food availability a major problem for the at-risk groups and the household? Can supplementary feeding be used to fill calorie/protein deficits for at-risk groups or for the household?

- What actions need to be taken by households to prevent malnutrition? What are the real constraints to implementing the measures—lack of income, food supply, etc.?

- What specific interventions are needed to reduce malnutrition, e.g., development of a weaning food, growth monitoring?

- Should the supplementary feeding activity be directly integrated with the child survival interventions because of targeting, referral, and supervision needs? Or should food be given through food-wage activities operating nearby?

In cases where project designers plan to use food as an incentive for participation in child survival activities, the following factors should be considered.

- Will demand for the child survival services be reduced when and if the food resource is no longer available?

- What mechanisms can be built into the project to ensure that food can be phased out without reducing demand for other services?

- If food is used as an incentive for training or as a component of wages for workers, what other user fees or resources can be used in the future? Alternatively, what strategy can be created to make incentives unnecessary, such as making the benefits of child survival more visible to the community?

7.3.2 Ensuring Adequate Coverage of the Target Group

Key Factors To Consider

Who is the target group of the project? Specify ages, location (rural/urban), households or individuals, pregnant women, seriously malnourished children, etc.

How large is the target group? In addition to all newborn children and children up to age 3, all fathers, mothers, and child-care providers should be included as they are the targets of education activities.

What are the characteristics of the target group, e.g., daily schedule, resources, constraints?

What impact will the characteristics of the target group have on project implementation decisions such as

- project sites
- timing and frequency of activities
- resources used

The objective of child survival projects is to increase the probability that children survive until the age of 3. All newborn children in an area should be entitled to receive child survival services, as the highest number of child deaths occur in the first year of life. Children will need to be followed for 3 years to ensure continued protection from killing diseases and malnutrition.

However, the target group of project activities is not restricted to children under 3 years old, but includes also those individuals whose situation and actions have an impact on early child survival. Their mothers and families are primary target groups.

The problem analysis should create a clear understanding of the factors contributing to malnutrition and early child deaths. (See questions raised in section 7.1). These data can be used to identify who needs to be reached with what resources, and when.

Since child mortality and its predisposing conditions of growth faltering and frequent disease occur during the first 2 years of life (or in utero due to maternal factors), child survival projects need a reliable mechanism for reaching children at or shortly after birth.

Child survival coverage targets are generally set at 80 percent of all children (under age 1 for completing the full series of immunizations, under age 2 for effective ORT use during diarrhea episodes, and under age 3 for appropriate feeding practices and

adequate growth). Pregnant women should be targeted for tetanus toxoid immunization, prenatal care, and supplementary feeding if they are underweight.

Once a geographic region is identified, it is desirable to conduct a census or enumeration of all households in the area to identify households with children under 3 and pregnant women. In very large areas, a census may not be practicable. In these cases a sample survey can be used to provide an idea of the numbers involved.

It is most important that a system be developed to enroll all newborns and newly pregnant women on a continuing basis. Project monitoring will include indicators for measuring the success of the enrollment system.

During project design and after services delivery get underway, qualitative research may be conducted to refine activities based on a better understanding of constraints faced by enrolled groups in achieving desired participation rates. Prevalent customs and beliefs, resources available to implement recommended feeding/child care behaviors, dependence on traditional healers, women's working patterns, seasonal availabilities of food and income, transportation/communication gaps, and distance from services may obstruct demand or participation. To achieve adequate coverage these constraints will need to be addressed.

Ensuring full participation of newborns and pregnant women has proved to be a particular problem in existing child survival activities. Special strategies, including outreach, timing, and promotion of service use will have to be worked out carefully to ensure complete participation of these important target groups.

7.3.3 Quality of Child Survival Services

Projects utilizing food resources may be the infrastructure to deliver the child survival interventions or may be the interface between service providers and the community. In the latter, the project plays the role of community motivation/participation enhancer and education/communication linkage. In either situation, project design would include assessment of supply side issues regarding the continuity and quality of child survival services and their adequacy in meeting demand.

Project impact will be undermined if the quality of services is inadequate and the services availability erratic. Monitoring indicators would include measurement of critical supply elements. Careful coordination and collaboration/joint programming with experienced child survival services delivery entities in the area may be very useful, at least initially, to ensure the availability of services.

Key Factors To Consider

What is the skill and motivation level of supervisors and personnel delivering the services?

How reliable are supplies of critical materials?

Are behavior modification strategies based on social marketing principles?

Do the proposed protocols meet international standards and national policy guidelines?

Is there an effective referral system for severely malnourished children, dehydrated children, complications of pregnancy, and obstructed labor?

Will food management make heavy demands on the time of health workers? How can these problems be minimized?

In some instances, the addition of food resources means additional management responsibilities. Overburdening key services delivery staff and systems will need to be avoided, and the role of the food resource carefully determined to minimize the management burden. Experienced food logistics/management agencies in the area and technical assistance may be an important resource to set up streamlined food management activities.

7.3.4 Commodity Specification and Usage

Key Factors To Consider

Is the use of food for nutritional impact or income transfer or a combination of the two purposes?

What total calorie and nutrient density is required? This is especially critical if food is to be used for seriously malnourished children or after episodes of diarrhea.

What sanitary facilities are needed for preparation and feeding of the commodities? Are the facilities available?

Food commodity specification and usage is a critical issue in child survival projects, given the special nutrition situation of young children and the seriousness of the medical problems associated with child survival. Planners are referred to the *Commodity Reference Guide*, which contains information on all aspects of food specification and usage for maternal/child health activities.

7.3.5 Indicators

Key Factors To Consider

What monitoring/efficiency indicators should be established for the project?

What population coverage indicators are appropriate for the project?

Indicators and information systems to collect, store, analyze, and interpret information should be individually tailored to the project, given resources and needs. The following are examples of frequently used and recommended indicators.

Project Monitoring/Efficiency Indicators

- proportion of centers with adequate staff
- proportion of workers trained
- proportion of service delivery personnel with adequate skill levels
- proportion of centers with adequate supplies
- household enumeration and continuous enrollment system in place
- proportion of mothers given education/training/counseling
- number of ORS packets distributed
- number of vaccines administered
- number of growth charts distributed

Population-Based Indicators of Project Effectiveness

- proportion of children under age 1 with full immunization coverage
- proportion of diarrheal episodes in children under age 2 where ORT was used
- proportion of children enrolled in growth monitoring by 6 months of age
- proportion of children under 3 weighed at least four times in the past year
- proportion of children 12 to 23 months of age with adequate weight for age

- proportion of children under 1 with appropriate infant feeding practices (exclusive breast feeding up to 4 months, addition of adequate weaning foods by 6 months, and continued breast feeding up to 1 year)

7.3.6 Sustainability

Key Factors To Consider

What will occur when project interventions conclude? Will needed services be available?

Can user fees be established to fund services?

Will volunteers continue to operate?

Will the target group be motivated to continue new practices?

Are there easily substituted commodities available from local sources to replace food aid commodities?

How can a schedule be established for phaseout, including the preparation of plans for the responsible transfer of skills and resources to local sources?

Should one activity be concluded and a follow-on activity established? For example, concluding female training and establishing income generation activities.

Sustainability is an issue with at least two levels. First, will child survival services continue to be available to the target population? Second, will the target population continue the desired behaviors and participation, and can immunization rates, effective ORT use rates, child growth rates, and mortality rates be maintained after the food resource is no longer available?

Strengthening of household and community resources and linkages with other services delivery agencies are mechanisms that need to be built into project design so that substitutes for the food resources can become available or unnecessary within the project completion schedule.

Establishment of user fees for services should be considered. If these are established while project resources are available, they can be used to establish a revolving fund to continue to pay honoraria and purchase needed materials.

If food distribution from maternal/child health centers is used to achieve high participation, the effectiveness of the services delivered during the life of the project will need to be visible and convincing enough to continue drawing high participation after project completion. Project activities such as growth monitoring can help make the beneficial impacts of the interventions more visible to communities and mothers.

8. ENHANCING PRIMARY EDUCATION

8.1 INTRODUCTION

Increased literacy is a priority goal for more and more developing countries. Education plans emphasize creating resources that contribute to the upgrading and expansion of primary education. In this context, planners are seeking to integrate food aid with other inputs to increase the effectiveness and efficiency of the school system.

ENHANCING PRIMARY EDUCATION USING A FOOD AID RESOURCE

A Definition

The objectives of these projects are to increase the quality, relevance, and efficiency of primary education, and to increase the enrollment and attendance of the poor. The principal means used to achieve these objectives are—

- targeting strategies directed to the poorest and worst served areas, or to schools with a high percentage of poor children
- increasing educational resources of the schools in quantity and quality, especially resources needed for practical education in basic life skills
- creating local capacity to manage school activities, including food programs, during and after project interventions

Food resources contribute in any of the following ways:

- reducing economic costs of sending children to school for poor families
- providing energy inputs to young children
- increasing cognitive ability
- providing remuneration for labor and infrastructure
- providing incentives for teacher training
- creating funds for the purchase of other resources through monetization of food

In this context, food is only one resource that must be supplemented with other resources. Projects are also not independent activities, but are integrated into overall education planning for the country. Project planners should establish what activities have the highest priority in achieving the objectives of enhancing the quality, relevance, and efficiency of primary education, and design or redesign the projects accordingly.

Whether the design is for a new or existing project, the problem analysis should establish whether there is a need for food, and if so, what is the most effective use of food. Examples of questions to consider are:

- Which problems of the education system require priority attention (e.g., poor pass rates, high levels of retention in grade, absenteeism, low attendance rates for poor children and females, early withdrawal of female children)?

- Which resources would have the greatest impact on the problems (e.g., classroom space, water, implementation of new curricula, better trained teachers, fenced gardens to provide practical learning experiences, provision of a meal at school)?

- If a school meal is already provided or under consideration, is there a strong local interest in school meals and a commitment on the part of government or community groups to provide meals with local resources after food aid stops? Can school meals provide a basis for improving linkages between schools and their local communities?

- Could the interest in school meals make a contribution to implementing a more relevant curriculum, using the provision of resources for school meals and their preparation as a basis for practical instruction?

Where feeding projects are underway, project designers may have existing data available to determine whether school meals are addressing problems, and how they compare with other types of interventions. Alternatively, participant research or focus groups, combined with inputs from the design group, can be used to find answers to the questions.

Section 8.2 provides examples of possible project activities to enhance primary education. Section 8.3 considers the issues of designing these projects.

8.2 PROJECT ACTIVITIES

There is a considerable variety of potential project activities to enhance primary education. A particular combination of activities is recommended for redesigned or new projects involving school meals. This approach is discussed in section 8.2.1.

When food is used to provide meals, the food either serves as a nutrition supplement or as an income transfer that helps to offset the costs of education, or it has a combination of these two effects. The implications for the design of school meals activities of these two different purposes are discussed in section 8.2.2.

Other activities for enhancing primary education that can be supported with a food resource are discussed in sections 8.2.3 through 8.2.5. This listing is not intended to serve as a catalog of all possible activities, but as a starting point for project designers. The activity or mix of activities selected for use in a specific project should be tailored to individual circumstances using the process set out in chapters 2 and 3.

8.2.1 Redesigned or New Projects Involving School Meals

Many existing school feeding programs have been in operation for 10 years or longer. Parents expect the activity will continue, and donors are reluctant to remove the resource from young children. However, as new schools are added, often in poorer and more remote areas, and school populations increase, the management problems and costs of the activity escalate.

Planning and management of school feeding activities are often almost totally outside the control of local communities and school staffs. The school system and the community may depend on external sources for the food *and* for menu planning, procurement and transportation, storage, cooking facilities, and utensils. Effective and sustainable school feeding projects require that this dependence be reduced by training school and community workers and by helping the community and the school to provide local commodities and other necessities for themselves.

The sponsors of programs generally have limited personnel who are burdened with the management and logistics problems involved in moving commodities to large numbers of schools (often in the thousands), many of which are difficult to reach. These agencies cannot provide all the personnel and resources needed to create independent capacity within communities.

Project redesigns must face these problems and devise means of solving them. New project activities should be designed from their inception to address these constraints. The following set of activities is suggested as a possible approach.

- *Specifying objectives.* The planners must consider the needs in the country and specify the objectives of the activity. For example, is it to increase enrollment in poor rural areas, to address nutritional problems, to increase the quality of

education, to increase attendance of girls, or a combination of these objectives? The outcome of this review will assist in establishing the targeting strategy and decision concerning components to include in the project.

- *Establishing a targeting strategy.* The design group must agree on criteria for including schools in the project (based on the problem analysis and established objectives for the project) and a phaseout schedule for support with external commodities. The time line may be long—10 to 15 years for very remote and poor areas. However, all partners, including local communities, must agree that the project will ultimately operate with national resources.

- *Creating local management capacity.* The local management structure will depend on the preferences of individual communities. It will most likely involve a committee with representation from the school, parents, and the community to prepare plans, and personnel at the school (teachers, paid staff, parent volunteers, etc.) to implement the activity. The project may need to provide assistance in organizing the committees, and training for committee members and implementers. The committee will decide on issues such as:

  - Menu planning. The community may decide to provide different or less elaborate meals when local resources are used.

  - Organizing the procurement of resources. These include commodities, fuel, water, personnel for food preparation, etc. Part of the needed resources may be provided by school activities, although the major portion will have to come from other sources.

  - Identifying funding sources. Parental contributions (in cash or in kind) will most likely be a major source of inputs, and other sources—local community, regional or national authorities—may also contribute.

Involvement in managing meals can be an excellent beginning to get communities more involved in the schools.

- *Assuring regularity and quality of meals.* Providing commodities is not sufficient to ensure students will receive meals regularly or that the meals will be of the desired quality. Cooking and storage facilities, water, fuelwood, and cooks must also be available. Project activities may need to establish sources for these inputs and devise strategies to compensate for shortfalls (introducing fuel-efficient

stoves and cooking methods where fuel is in short supply, planting a school woodlot, etc.)

• *Establishing productive resources.* Project activities can create resources at schools to produce a portion of the inputs needed for school meals. This will reduce the burden on parents and the local community while providing opportunities for practical learning experiences. Examples are:

- fenced, leveled garden areas
- water supplies for cooking and gardening
- tools, materials, and training to produce useful household items for sales at school bazaars

Redesigned projects will have to juggle the demands of existing operations with the implementation of the new activities suggested above. There may also be considerable variation in the interest of local communities in continuing school meals after phaseout of donated supplies.

The individuals preparing the redesign should survey communities and determine their commitment to school meals. A schedule for creating local capacity in those communities which wish to continue school meals can then be prepared in accordance with the phaseout plan for external resources.

8.2.2 Food as a Nutrition Supplement and/or an Income Transfer

Food serves as an important *nutrition supplement* when it is used to provide a meal or snack at school, and the school meal does not replace one that would be provided at home. For example, if children typically receive breakfast in the morning, and no other meal until the evening, a lunch provided at school could serve as a major source of calories and protein.

This use of food can contribute to drops in absenteeism. It provides children who often walk long distances to school with an incentive to go to school and additional energy for the journey. Energy inputs also contribute to alertness and can enhance the students' cognitive ability in lessons. All of these benefits contribute to the efficiency of the school system; pass rates, retention rates, and exam scores may all be improved.

School meals serve as an *income transfer* to households when the meal replaces one the child would otherwise have had at home. Often the meal may serve as both a nutrition supplement and an income transfer: the child receives less at home (thus

reducing costs of the parents), but the total amount of food consumed by the child (or the quality of the diet) is greater than it would have been in the absence of the school meal.

Reducing costs of education for poor households can reduce absenteeism among students and can also increase retention rates of females in school. This latter effect is highly desirable not only for improving the quality of life of women, but also because the number of years of education women receive is correlated with other positive changes, for example, improvements in the child survival rate.

Project designers should establish whether income transfer, nutrition impact, or a combination is most desirable in development terms, and the preference of the local communities. These decisions will have an impact upon other choices to be made in the projects, including resource requirements, the mode of implementation, and the timing of school meals.

Income transfer may be achieved without organizing meals at school, such as providing take-home rations or food stamps to poor households with children regularly attending school. Nutrition impact may also be achieved in this way, but school meals provide more assurance that the child will receive the desired level of benefit.

8.2.3 Food for the Construction of Facilities

Improved facilities may be critical to enhancing primary education. Adequate classroom space, water supplies, woodlots for heating and cooking, demonstration gardens, and latrines are examples of resources that will enhance the learning environment and the health of children. Food can provide part or all of the wages for workers constructing infrastructure or it can be donated as an incentive to communities to undertake the work (see chapter 4). When a community is phased out from receiving commodities for school meals, this use of food can ease the impact on supplies during the transition period, while enhancing the education system.

Construction of other facilities may be essential to introducing practical curriculum in basic life skills. Teachers cannot demonstrate agricultural skills, for example, and children cannot be tested on their practical skills in growing vegetables unless schools have fenced garden plots and adequate water supplies. Food can compensate workers or communities constructing such facilities.

Garden plots and similar resources can also serve as a source of income generation for students or for schools. Other assets such as school woodlots can serve energy needs and possibly serve as sources of income. Land preparation and planting may be accomplished with a food wage or incentive.

8.2.4 Food for Training

School systems have a continuing requirement for in-service teacher training to upgrade qualifications of teachers and introduce innovations in teaching practice. In many countries, educators are also working to implement curricula that are more relevant to their populations, emphasizing instruction in basic life skills. Teachers need training in teaching the curricula and in using new instructional materials. Training for other individuals involved in education including school inspectors, school managers, head teachers, and parents will also facilitate the introduction of new curricula.

Food can be used to support training programs. It may be provided as an incentive to individuals to attend the sessions. It may also provide a wage element or incentive to individuals who are trained as trainers and organize training sessions for others in their areas. In addition, food can be used to provide meals during training activities.

8.2.5 Food for Monetization

Food can be sold to generate funds for certain of the other resources needed to implement education programs. Monetization requests should follow current guidance for this use of food. Approval of monetization requests depends on justification of the requirement for the funds and demonstration that they are not available from other sources. Food for use in school lunches could be sold to the government, possibly at subsidized prices. This could be an intermediate step in the phase-over to full local support for lunches. Monetization policy requires that commodities be sold at full commercial price, but waivers can be granted provided the lower prices are justified in the monetization request.

8.3 PROJECT DESIGN ISSUES

Project design issues specific to enhancing primary education are discussed in this section. Most of these issues are primarily basic design issues but they will also affect plans for project implementation. The final issue of project coordination arrangements is an implementation issue which is critical to project success.

8.3.1 Specifying Objectives

Food-aided projects are intended to focus on the needs of the poor and on those of areas on the periphery of the system, such as rural areas and urban slums. Increasing the education rate of females is also a priority, and it is important in meeting other priority concerns such as child survival. Determining the specific objects of projects will depend on the situation of these sectors in the country concerned.

Key Factors To Consider

What is the composition of the population in attendance at school? Are the numbers of poor children and females in attendance at schools proportionate to their share in the population or is school attendance heavily weighted to better-off and/or male children?

How do attendance rates, facilities, and attendance rates of the poor and girls in rural areas compare with the situation in urban centers?

Is the curriculum relevant to the needs of poor rural areas or of poor households in urban areas?

What actions are national, regional, or local authorities taking to enhance the quality, relevance, and efficiency of the educational system?

Where there is near universal attendance of poor children, or where the school population is almost universally poor, the focus of objectives will be on increasing the quality and relevance of education. When the poor are well represented, but girls or poor girls in particular are not, the objective of activities should specifically focus on ways of increasing attendance of females in schools.

Where the poor are underrepresented in the school system, or where rural areas or urban slums are poorly served by the school system, the objective of activities will be to increase the attendance of the poor and the educational resources that cater to their needs.

8.3.2 Establishing Targeting Strategies

A targeting strategy should be based on clear-cut objectives critical to an effective project to enhance primary education. It provides an objective basis for focusing limited resources in selected areas and indicates the factors that should be addressed.

Key Factors To Consider

Are data available on the characteristics and efficiency of the school system, broken down by geographical areas, to provide a perspective on the differences (if any) within the country?

Are there certain characteristics, such as income of areas, ease of access, classroom space, teacher qualifications, or malnutrition of young children, which are correlated with the educational achievements of the school system in the areas concerned?

Are there differences between areas in respect to the percentage of poor students or girls attending school? If so, is it possible to determine why?

In the case of an existing school meals activity, is there an interest in creating the capacity to continue the activity with local resources? Are there differences within the country in the support for the activity?

Project management can concentrate on providing quality inputs to a specific set of schools, and on establishing the conditions for continuation of innovations following the conclusion of the project. In the case of existing projects, a targeting strategy will provide the basis for preparing a phaseout or phasedown schedule for activities, or consolidation of a project.

The process of preparing the targeting strategy can be a positive factor in establishing the conditions for project implementation. It can be used to create a consensus between project sponsors and the target population on the course of action for the project.

The ministry of education or education department should take the lead in preparing the strategy and involve other interested departments and organizations as well as the target population. Existing data on the school system can be reviewed. In addition, participant research involving school administrators, teachers, parents, and students can supplement the data. The process should indicate where the need for activities utilizing a food aid resource is greatest, and where such activities have the most potential for success.

The information should be assessed in relation to the resources of the project sponsor, and inputs available from national, regional and local sources. The most helpful targeting strategy is one that balances needs, interests and resources to provide a framework for successful project activities.

8.3.3 School/Community Linkages

Key Factors To Consider

What is the current relationship of primary schools to the communities they serve?

Are there institutions such as school committees that include representatives of parents and the local community as well as officials involved in the school and educational system?

Project activities implemented with a food aid resources require a cooperative relationship between schools and communities.

Facilities such as school gardens require year-round attention and security from theft and destruction. Teachers need assistance in preparing school meals and in procuring water and fuel. Students also require parental acceptance if they are to use new practical skills that they learn at school, for example, increasing the yields of home gardens.

In many places, schools operate in isolation from the local community, and parental involvement ends at the school door. The wider community is indifferent to the school and certain segments of the community are hostile. School resources (such as fuelwood trees, water, and gardens) may not receive the protection of traditional authorities.

Project designers should be sensitive to these problems. If the current situation does not encourage an active, positive interaction between the school and community, project activities should work to improve the relationship. At a minimum, school committees should be established and receive project support to provide local leadership in implementing project activities.

8.3.4 The Relationship of Curriculum to Project Activities

Most of the project activities described in section 8.2 require educational rewards for student participation. Where school meals are provided, students may be involved in meal preparation and in gardening to provide a portion of the inputs to the meals. This can be a positive benefit of project activities, providing practical demonstrations of basic life skills.

Key Factors To Consider

Can food aid related activities be supportive of the curriculum, e.g., education in meals preparation?

Can food aid help support a more practical curriculum, by providing opportunities for demonstrations of food preparation and handling, school gardens, etc.?

However, the activities can be counterproductive if students view them as extra activities (particularly if only a portion of the students are involved while all benefit). Even greater problems are caused if the work is assigned as a punishment.

Project implementation will be easiest and achievements greater when training in basic skills is part of the curriculum and students are tested on their achievements. Project designers should review the current curriculum and plans for any changes. Project resources can be directed to support implementation of positive changes.

8.3.5 Resource Requirements

The question of *personnel* is critical to project success. Primary education projects generally operate in a large number of schools. Many individuals will be involved in project implementation including national and regional personnel, district officials, school inspectors, school administrators, teachers, parents, and community helpers. Many of these individuals will need training and assistance from project staff to carry out their responsibilities.

Project designers should survey sources of personnel who may be found among individuals already employed by governmental and private organizations. As many existing employees are already overburdened, volunteer service organizations, both national and international, should be considered as another potential source of personnel.

Funding for costs other than food is critical to the successful operation of the project. Transportation, personnel, training, and materials will all be required for project success. Agencies programming project food aid resources may have limited cash funds, and education ministries typically face severe budgetary constraints.

Key Factors To Consider

Are sufficient qualified personnel available to implement the program?

What sources can provide the cash resources needed by the project?

If meals are to be provided,

- What commodities should be provided for meals, given the desired impact on students and the intention to convert to the use of local resources?
- Are storage areas and cooking and eating utensils available?
- Are water and fuel available at the school? If not, can arrangements be made to bring them to the school in time for meal preparation?

Many bilateral and multilateral donors as well as PVOs have funds that they are prepared to contribute to well-designed primary education projects. Project designers should ensure that these organizations are contacted during the design process. Monetization of food may be used to supplement these other sources.

The methods of estimating commodity requirements for school meals are covered in the *Commodity Reference Guide*, section IV, pages 39-49. Project designers should pay special attention to the substitutability of local commodities in planning resource estimates.

Storage areas at schools and the availability of cooking and eating utensils are essential to school meals activities. Fuel and water for cooking and individuals to supervise the cooking process are also necessary. In their absence, students will not receive the benefits intended from the provision of food. Local communities need to be fully involved in ensuring that these resources are available.

Possible solutions to the fuelwood issue are periodic work days to create stockpiles, combined with student activities to maintain the stock (e.g., students bring bundles of fuel to school according to an agreed-on schedule). A longer term solution is to plant fuelwood trees around schools.

Similarly, water problems may be solved by making sure that storage barrels are available at schools. Gutters to collect rain water can be used where there are no other sources of water such as wells, or can be used to supplement these sources. Students may also collect water on the way to school to augment supplies.

8.3.6 Timing of Meals

Timing of meals is a critical factor in achieving desired project benefits. It is important to study the current pattern of consumption. Project designers should also determine the optimal timing for the meal and identify any constraints to serving the meal at that time.

Problems such as the schedule for the school day may have to be resolved by regional or national education authorities. Other potential problems include delays in securing fuel and water or the times when cooks may be available. Local groups should be involved in identifying strategies to solve the problems. Ways of addressing fuel and water scarcity are discussed in section 8.3.5.

Key Factors To Consider

What is the consumption pattern of children in the absence of the meal?

Is it intended that the meal have a nutrition impact or income transfer effect, or a combination of the two?

Is it desirable to time meals so they will provide additional energy and help the children to pay attention to lessons?

What constraints exist that will affect meal times, for example, school schedule, supplies of fuel and water, availability of cooks?

The cooks, whether volunteer or paid, may be delayed in arriving at school by household chores or distance. This can result in the provision of meals late in the school day. There are ways to overcome this problem. For example, cooks can start the meal the previous day, using slow cooking techniques such as hay or solar boxes (which are also fuel efficient). Cooking can be finished and the meal served shortly after the cooks arrive.

8.3.7 Coordination Arrangements

Key Factors To Consider

What structure is needed to ensure that all groups involved in project implementation work together effectively?

How can project decision makers, implementers, and participants at the national, regional, and local levels be appropriately involved in decision making and evaluation?

Coordination is a critical issue in most projects to enhance primary education, as there are large number of participants and multiple project sites. Project designers should give considerable attention to developing an effective coordination structure.

Project planning workshops involving individuals from national, regional, and local groups could identify arrangements tailored to specific country circumstances. Project startup workshops and team building exercises would also be helpful in refining arrangements.

9. NATURAL RESOURCES MANAGEMENT

9.1 INTRODUCTION

Food aid provides a significant share of the donor resources available for improving natural resources. Emphasis is placed on building soil and water conservation structures and on tree planting. Activities often have quantitative goals, for example, in terms of miles of terracing constructed or numbers of trees planted. Some projects have been highly successful in those terms.

There is growing recognition, however, that the magnitude of environmental degradation will overwhelm such efforts, no matter how large. The focus is shifting from quantities to the creation of the human and other resources needed to enhance and maintain the environment on a continuing basis. This chapter identifies ways in which food aid can be used to support this new direction.

NATURAL RESOURCE MANAGEMENT PROJECTS USING A FOOD AID RESOURCE

A Definition

The goal of these activities is to establish management systems to assure adequate soil productivity and water availability for human and agricultural needs in poor areas. The principal features of these projects are:

- They are generally operating in environmentally degraded areas.
- The goals are long term and often in conflict with immediate private benefits.
- A systematic approach is required to address these constraints, including—
  - sensitization of the local population to environmental problems
  - collaborative land use planning and replanning
  - rehabilitation of natural resources
  - maintenance, protection, and managed use of the resources
- Food is used as a resource to support
  - construction of physical structures
  - plant cultivation intervention
  - education and training

The problem analysis is a critical step for these projects, given their complexity and the long-term nature of the goals to be achieved. The example of a problem analysis included in section 2.3.4 was for a natural resource management project and listed questions that may be applicable to the proposed activity. General questions to consider include:

- Is(Are) the area(s) suitable for rehabilitation? Are the costs of any proposed intervention reasonable in terms of expected benefits?

- What is the current level of awareness of environmental problems? Are there other interventions planned or underway at the national, regional, or local level that will have a positive or negative impact on the environment in the area?

- What are existing land use patterns? Is there an existing land use plan? If so, what authorities are responsible for administering the plan? Are there religious or cultural practices that affect use of natural resources?

- What labor is available for construction and maintenance? What skills does the labor have?

- How will the natural resource needs of the population be met, during and after the rehabilitation process?

- What actions are required to assure that natural resource management will continue following project phaseout?

Labor availability can be a particular issue, as large-scale works and tree planting as well as small-scale structures and improved cultivation practices are often required. The labor availabilities in the area may be insufficient, especially if tree planting schedules and agriculture production calendars result in labor demands during the same time period. Refugee populations, which are present in many countries, may provide a source of needed labor. Although they have no vested interest beyond the food and other wages they receive, refugees can be employed for initial structural work and tree planting. Maintenance activities, which demand lower labor inputs, can be turned over to local populations.

Consideration of this question and the others listed above will clarify what can be attempted in the area, and elements that need to be included in the project. Section 9.2 provides examples of the types of project activities included in natural resource management projects, and the ways in which food can be used to support the activities. The design issues of natural resource management projects are discussed in Section 9.3.

9.2 PROJECT ACTIVITIES

Natural resource management projects generally include three types of interventions: construction of structures and facilities, plant cultivation, and education/training. The following table provides an illustration of typical activities.

Overview of Activities Included in Natural Resource Management Projects

Physical Structures

1. Nurseries
   - Leveling and fencing site
   - Water storage/delivery system
   - Preparation of seed beds
   - Construction of office/housing for nursery manager, roofed shelter, storeroom
2. Water Retention/ Soil Conservation Structures
   - Terraces
   - Bunds
   - Rock Lines
   - Contour plowing
   - Water harvesting
   - Sediment ponds
   - Diversion channels
   - Dams
   - Windbreaks
3. Fencing of Protected Areas, Outplanted Areas, and/or Individual Tree Seedlings
4. Maintenance of Structures

Plant Cultivation

1. Seed Collection
   - Native grasses, shrubs, and trees
2. Nursery Operation
   - Filling plastic bags
   - Planting and cultivating a variety of useful shrubs, trees, and vegetable seedlings
   - Growing produce for sale
3. Outplanting
   - Digging holes
   - Distributing seedlings
   - Planting seedlings
   - Watering
   - Mulching
   - Replanting
   - Seeding of rangelands
4. Protection and Maintenance of Plants
   - Surveillance of outplantings and protected areas
   - Watering
   - Weeding
   - Pesticide application
5. Harvesting
   - Wood
   - Fruits and nuts
   - Fodder

Education/Training

1. Environmental Awareness
   - Local community and leaders
   - Teachers/Students
   - Extension agents
2. Management of Interventions
   - Local leaders
   - Nursery managers
   - Workgang supervisors
   - Extension agents
3. Technical Skills
   - Design of structures
   - Construction techniques
   - Plant selection
   - Cultivation
   - Nursery operation
4. Business Skills
   - Marketing of nursery products, seedlings, timber, and fuelwood
   - Personnel management
   - Financial planning, accounting, and auditing

The specific interventions included in a project will depend on local circumstances. A pasture improvement project might include only reseeding and surveillance of the area or could also involve fencing and introduction of trees for land improvement, shade, soil stabilization, and fodder production. Similarly, projects in farm land might include establishment of soil/water conservation structures in fields, collection of seeds of native-preferred tree species to be seeded with crops on the farm land, or may include the full range of interventions discussed above. In urban areas, trees and other plants may be established to improve air quality and aesthetics, as well as provide incomes from the sale of products.

Nurseries provide a means of growing useful grasses, vegetables, ornamentals, shrubs, and trees, and they may be critical for assuring the economic sustainability of the interventions. Nursery establishment usually has to be included as a project component unless nurseries are already in operation in the areas concerned.

Education and training is a critical component that often receives insufficient emphasis in projects. Creating awareness of environmental issues in the local population is an essential first step. Representatives of all user groups should be identified and included in the land use planning process. These individuals will often require training in planning skills and in the options available to address their environmental problems. Educating the youth will provide additional support for current operations and help assure continuation in the future. Training in management as well as technical and business skills are needed to assure the viability of the activities. The following sections discuss how food can be used in the projects.

9.2.1 Food To Compensate Workers

Food alone or in combination with cash is commonly used as a wage on natural resource management projects. The most visible use is on large-scale labor intensive public or communal projects such as dams, roads, soil and water conservation measures, and plantation establishment. In these cases, the resources created form part of the development infrastructure of the country, and the issues discussed in chapter 5 are applicable to the project.

Food as wages is also used to pay nursery workers and other personnel. This use of food can extend the cash available for the project so that more can be accomplished. Nurseries are a critical component of many projects, and it is often a goal to establish them as self-supporting or preferably profitable enterprises providing both employment and income to local groups. Chapter 6 on long-term income generation includes examples from natural resource management projects and considers food use in such enterprises.

9.2.2 Food for Products

Food rations in combination with a cash payment or alone can be used to trade or "purchase" products or services a project might normally have to procure. Individuals or families can be contracted to provide tree seeds, tree seedlings, sand dune fixation materials, gully fill, or nursery materials such as watering cans, fencing,

shading materials, or even a well. This arrangement is particularly appropriate for women, who generally have other family responsibilities and can benefit from part-time work and flexible work arrangements.

9.2.3 Food for Fallow

This use of food aid is similar to compensation provided to American farmers under the Conservation Reserve and the earlier soil bank/tree bank programs. The programs might include elements of land improvement such as reseeding of pastures or tree planting as the basis of a new sylvo-pastoral or agro-forestry system in addition to limitations on traditional use. Food aid can provide for family survival during the period until the land can once more be used for productive purposes.

9.2.4 Food for Training

Food aid can be used as an incentive to participate in the several types of training activities outlined in the chart. Although training opportunities are an incentive in themselves, it is not always possible for poor individuals to take time from normal income generating activities without support. Provision of a meal during the training session or a take-home ration can be sufficient to offset these opportunity costs.

Food aid can also be used either to support the trainee or the household of the trainee during longer term training. This could be during the training period and also during the time the trainee is applying new skills in an enterprise prior to its generating sufficient revenues to pay wages. An example is using food aid for the meals of participants attending a fruit tree nursery management training program. The participant's family also receives food aid while the participant is in training. Once the participants complete training and return home to establish a nursery, they and their families continue to receive food aid until the nursery is in production and can produce an income for wages.

Food can also be provided for trainers. For example, extension agents/trainers could receive half their wages in food commodities. Trainers who are introducing environmental awareness curriculum to teachers could receive similar compensation. Food aid could also be given to lead farmers who participate in practical training sessions and implement what they have learned on their own fields as demonstrations for the community. Using food commodities for part of the salary can stretch a project's cash resources, increase the total number of personnel, and can provide remuneration for para-extension agents and lead farmers.

9.2.5 Food for Planting or Replanting

Food aid can provide support for families during the period of time that it takes to establish trees as new cash crops. New varieties of cash crop trees that are better suited to markets can supplement local varieties. Examples of this use were provided in section 6.2.2.

Food aid support could also be appropriate during refugee resettlement, transmigration, and new land schemes where settlers are waiting for recently established cash crops such as fruit trees, coffee, and tea to come into production. In addition, in situations in which diseases, fire, insects, and changing climate conditions have destroyed a family's crops, food aid can provide the bridge while labor is invested in the establishment of new trees or other environmentally appropriate crops.

9.2.6 Food for Protection

Food wages or incentives can provide the necessary additional input to motivate or enable individuals or groups to protect natural resources. Activities could include fire protection, grazing control, or fencing. Also food aid could train and maintain fire fighting crews and game guards. In the buffer zone of protected areas, food aid-supported developmental activities can provide people with an alternative to park or forest exploitation.

An example is an activity in which villages proximate to national forest parks are contracted to build and maintain fire breaks and to suppress wild fires. Food commodities are delivered in the lean, or hungry, period of the year—just prior to the rains. The labor is provided mainly in the slack period after the end of the harvest season.

9.2.7 Food for Incentives

Food aid can be used to provide an inducement for people to undertake activities and increase participation. For example, group meals for people participating in village or national workdays can leverage substantial in-kind labor and provide for group cohesiveness. Food aid incentives can also be used as a reward for farmers who plant and protect trees; the payment in food aid can be based on the number of seedlings surviving after a given length of time. This approach could be used in any circumstance where behavior modification is desired and small periodic labor inputs are necessary for activity success. Fulfilling the contract obligation by the donor of the promised commodities is important for continued credibility.

The use of a food aid incentive can also help individuals overcome barriers to mobilizing sufficient labor for conservation works on their fields. In many areas, labor "invitations" to families and friends will be responded to, but the invitee is expected to provide a meal. A natural resources management project could establish village-managed revolving food stocks for this purpose using donated foods. Farmers could take food out to undertake the work and repay the fund with grains in kind after the harvest. The fund would be available for additional farmers to use for similar work the following year.

9.2.8 Food for Monetization

Food can be sold to generate funds for certain of the other resources needed to implement natural resource management projects. Monetization requests should

follow current guidance for this use of food. Approval of monetization requests depends on justification of the requirement for the funds and demonstration that they are not available from other sources.

Closed monetizations of commodities, where food aid is sold to the participants in activities, may also be appropriate in projects. For example, food commodities can be sold at subsidized prices to low-paid workers on construction activities and the funds used for project budget needs. This use of food can be helpful in attracting a labor force and can also help to assure food is available for workers. This can sometimes be a problem, especially when large numbers of laborers are working in areas with small populations and limited markets. Monetization policy requires that commodities be sold at full commercial price, but waivers can be granted provided the lower prices are justified in the monetization request.

9.3 PROJECT DESIGN ISSUES

Many of the project design issues discussed in earlier chapters also apply to using food aid as a resource in forestry/natural resource projects. Those brought out in chapters 5 and 6 are especially applicable and should be taken under careful consideration. Additional issues that require special emphasis in natural resource management projects are discussed in this section.

9.3.1 Selection of the Project Site

Key Questions

How difficult are the technical problems posed by the proposed site(s)? Are there well-established techniques for addressing the problems that have been tested in similar areas in the country?

Are there activities underway or planned at the national, regional, or local level that will have a positive or negative impact on natural resources in the area?

Will the planned interventions provide benefits to the community living in the area?

How poor is the area concerned? How serious are food deficits?

There is often a conflict between working in degraded, poor areas with severe food deficits and the potential for success with natural resource management activities. Planners need to consider the resources they have available and the previous experience in the country when choosing sites for a new project. Initial activities should be in areas with more favorable conditions unless there is the possibility of building on the achievements of tested approaches. Starting in easier areas will enhance the chance of project success and avoid early discouragement of personnel.

As more expertise is created by project activities, consideration can be given to expanding into more difficult areas.

Project site selection must consider also how the area fits into existing national, regional, and local land use and future plans for the areas. Project efforts in a watershed can be defeated if activities farther up the watershed result in water diversion or increased runoff. Conversely, forest plantation development or soil/water stabilization efforts can increase the chances for success in a marginal site.

Increasing the biomass in degraded areas may be critical to protection and enhancement of the environment in large (and often more favored) areas of the country. However, forestry development or protection measures can reduce land needed for production in the treated areas. In these cases, it will be essential to assure there is potential at the site to incorporate elements of benefit to the local population, and that there is existing expertise to implement the components.

Planners will also need to ensure that food is an appropriate resource to use in the areas. Although degraded areas often have inadequate food supplies, this is not always the case, and other forms of compensation or incentives may be more appropriate.

9.3.2 Ensuring Necessary Technical Inputs Are Available

Key Questions

What technical inputs are needed both for establishment of the activity and for the long term?

What infrastructure does the PVO and any local NGO partners have to: (a) manage the activities, (b) conduct training, (c) organize marketing activities, and (d) assure timely delivery of food aid?

What skills are available from government departments such as Forestry, Agriculture, Land Management, National Parks, or donor project activities?

Are there private or quasi-private environmental protection organizations that can provide informational or other technical inputs?

What technical skills are available from in-country consulting organizations?

A broad range of technical skills are typically required for natural resources management. Project designers must assess which skills will be required for the

proposed activity and identify where the skills can be acquired. A first step is determining whether the PVO infrastructure and food handling capacity are adequate in terms of the size, complexity, and location of the activity. If NGO partners are involved, their resources may supplement those of the PVO.

Arrangements should be made for a review of the initial plans and assessment of the technical complexity. Even small-scale activities such as a check dam in a gully can represent a heavy cost in labor and other resources to a village, and can be destroyed if the design of the structure does not anticipate the maximum flows in the area. PVOs and NGOs are unlikely to have all the necessary skills present among their staff members. Other institutions in-country may include persons with the necessary backgrounds, and these should be identified. Some of these organizations may be prepared to participate in the project activity and to contribute these skills, as is discussed below. Otherwise, project budgets should include funding to acquire the necessary technical inputs, preferably from in-country organizations.

9.3.3 Establishing a Working Relationship With Multiple Interest Groups and Resource Providers

Key Questions

What individuals and local communities, as well as governmental, private, and donor organizations, have an interest or responsibility in the project?

What is the interest of each group?

How can the interest be satisfied?

How can all interest groups be involved in planning and replanning the activities?

What procedures are needed to ensure that all parties understand what they are expected to contribute to the project and the benefits they will receive, including the ownership of outputs?

The stakeholders analysis discussed in section 2.3.5 has particular importance for natural resource management projects. The local population has the largest stake, and it is likely that there will be a variety of interests to accommodate within this group. In addition, individuals or groups not normally resident in the area may have ownership or usage rights that will be affected by the activities. Conflicts between groups and between benefits to communities versus individual benefits as well as short-term versus long-term benefits will need to be identified and resolved.

A variety of governmental and private organizations may also have an interest in the activity or be involved as resource providers. It is common to have technical

expertise provided by more than one government ministry, for example, site and species selection by staff of the Forestry Department and extension agents from the Ministry of Agriculture. Ministries of the Interior are concerned with such issues as land registration and management, and other departments may be responsible for the local political institutions that police land rights and usage and may have local revenue raising authority. Voluntary groups of several types, local, national, and foreign, may have a stake in the activity as well as environmental action groups.

Collaborative planning needs to start early with key stakeholders and should be a continuing process. Agreements between the collaborating organizations must be made on roles and responsibilities, on a time line for implementation, and a plan for phaseout of the various external inputs. Agreed-on schedules should be developed for delivery of food commodities and other inputs.

A variety of means can be used to establish and maintain the working relationship. Focus groups may be established within each of the collaborating groups to discuss problems and expectations. Representatives of the groups should meet on a regular basis to review accomplishments and plan future activities. Institutionalization of the arrangements will permit continual attention to natural resource management issues in the area concerned and changes in the approach as required over time. Initially the project sponsors can assist in organizing the project network, but should ensure that the local groups assume responsibility for continuing the consultative process.

9.3.4 Identifying and Resolving Gender Issues

Key Questions

Were both local men and women surveyed to determine their attitudes toward and requirements for natural resources?

Are both men and women included in the planning group?

Are there differences between men and women in their responsibilities, access, and usage with respect to natural resources?

Have project plans adequately addressed the needs of both men and women?

Women often have the major responsibility for household fuel and water supplies. In arid regions with limited sources of fuel and water, these duties absorb ever greater amounts of women's time. Women also have significant roles in agriculture production, processing, and income-generating activities. Women's enterprises such as palm oil processing, soap making, or beer brewing require large quantities of water and fuelwood. Women also collect wild tree products such as shea nuts, which

are important sources of family food and income. All of these activities can be affected positively or negatively by project interventions.

Women's labor is often needed to carry out the activities, and they may benefit from the new employment opportunities. However, women's multiple responsibilities in food production and domestic chores can affect their ability to participate. If their participation is required, other important activities may be neglected.

However, when natural resource management activities are undertaken, women are often left out or underrepresented in the planning and implementation of activities. As men are often unaware of the details of women's activities, or their interests are opposed to those of the women, the failure to fully include both men and women in information gathering and planning activities can cause hardship and/or failure of the activity.

When women are included, they can assist in finding solutions to conflicting interests. For example, closing an area to fuelwood collection may be impossible to enforce if there are no alternative sources of supply. Preceding the action by planting fast growing shrubs suitable for fuel as borders around the area, in compounds or on unused land, combined with environmental education of the population can increase the chance of success with the intervention. The timing and organization of work can also accommodate women's responsibilities. Flexible working hours, part-time work, child care, and meal provision at work sites are examples of possible approaches which could be considered with the women.

9.3.5 Assuring Continuation of Natural Resource Management

Key Questions

What opportunities are there for long-term income generation from project activities?

Will the interventions increase yields from agriculture, make it possible to grow more or different crops, or extend the production season? Will there be any increased income or benefits in livestock production?

Can charges be established for natural resource use that will finance continued maintenance and enhancement of the resources?

What arrangements are there for continuing environmental awareness training?

Three conditions are needed to assure continuation of natural resource management efforts. First, the population of the area must be aware of the relationship between plants, conservation structures, and soil fertility/water availability. Second, the

community must have a vital economic interest in maintaining the structures and plants introduced by the activity. And finally, there must be some means of assuring that a portion of the income generated is used for continued improvement and maintenance efforts. Arrangements for assuring these conditions are met are a necessary component of successful activities.